

# PURSE PROJECT

*Private Participation in Urban Services*

---

## DESCRIPTION OF EXISTING PRIVATE SECTOR PARTICIPATION PROJECTS AND PUBLIC PRIVATE PARTNERSHIP PROJECTS IN INDONESIA -- AND AN ANALYSIS OF LESSONS LEARNED

PURSE Report No. 102.04.1/93/006

*Submitted by*  
Chemonics International  
Jakarta, Indonesia

*In association with*  
Resource Management International  
Sheladia Associates

March 1994

Under Contract No. AID 497-0373-C-00-3030-00  
United States Agency for International Development

---

BAPPENAS  
DEPARTEMEN DALAM NEGERI

DEPARTEMEN KEUANGAN  
DEP. PEKERJAAN UMUM

# **DESCRIPTION OF EXISTING PRIVATE SECTOR PARTICIPATION PROJECTS AND PUBLIC PRIVATE PARTNERSHIP PROJECTS IN INDONESIA -- AND AN ANALYSIS OF LESSONS LEARNED**

**PURSE Report No. 102.04.1/93/006**

**March 1993**

---

## TABLE OF CONTENTS

---

	Page
EXECUTIVE SUMMARY	i
GLOSSARY AND LIST OF ACRONYMS	v
SECTION I BACKGROUND	1
A. Origin of Assignment	1
B. Purpose of Report	1
C. Definitions	1
D. Methodology	4
E. Report Organization	5
SECTION II CASE STUDIES	6
A. Water	6
A1. PDAM Billing and Collection System, Surabaya	7
A2. PDAM Service Contracts, Medan	9
A3. Nusa Dua Water Supply System, Bali	14
A4. Umbulan Spring, Pasuruan, East Java	18
B. Wastewater	23
B1. ESI Hybractor, Mojokerto, East Java	24
C. Solid Waste	27
C1. Dinas Kebersihan Solid Waste Transfer Service Contracts, Surabaya	28
C2. Dinas Kebersihan Solid Waste Contracting Program, Jakarta	31
C3. Dinas Kebersihan Waste Incineration Plant, Surabaya	34
C4. P.T. Wira Gulfindo Sarana Transfer Station, Jakarta	37
C5. Cibinong Chemical Waste Facility, West Java	41
D. Power	44
D1. Cikarang Listrindo Power Plant, Bekasi, West Java	45
D2. Paiton One Power Project, East Java	47
D3. Batangas Power Plant, Pinamucan, Batangas, Philippines	49
E. Highways	51
E1. Jasa Marga Process	52

C

SECTION III LESSONS LEARNED	56
A. Private Sector Participation (PSP)	56
A1. Conclusions	56
A2. Recommendations	58
B. Public Private Partnerships (PPP)	59
B1. Conclusions	59
B2. Recommendations	61

ANNEXES	63
---------	----

- A. PDAM Surabaya Billing and Collection System  
*Surat Perjanjian Kerja*, dated December 31, 1992 - standard service contract for billing and collection contractors.
- B. PDAM Surabaya Billing and Collection System  
*Garansi Bank*, dated December 30, 1992 - standard form of bank guarantee for billing and collection contractors.
- C. PDAM Surabaya Billing and Collection System  
*Lampiran Surat Keputusan Direksi PDAM Kotamadya Dati II Surabaya*  
Number KPTS/30/411.61/85, dated April 23, 1985 - attachment letter to PDAM decree delineating the graduated payment scale for contractors.
- D. PDAM Tirtanadi Medan Service Contracts  
*Surat Perjanjian Kerja Sama Tentang Penagihan Kwitansi Air*, dated August 25, 1993 - contract for billing and collection services.
- E. Nusa Dua Water Supply System  
*Kesepakatan Bersama*, dated September 24, 1990 - memorandum of understanding (MOU).  
  
*Kesepakatan Membentuk Perusahaan Patungan*, dated March 5, 1991 - agreement to form joint venture.
- F. Dinas Kebersihan Surabaya Service Contracts  
*Surat Perintah Kerja*, dated April 30, 1993 - work order for solid waste transfer services.

---

## EXECUTIVE SUMMARY

---

This report presents and assesses case studies of fourteen infrastructure transactions in the water, wastewater, solid waste, power, and highways sectors. Of the fourteen case studies, four are in the water sector, one is in the wastewater sector, five are in the solid waste sector, three are in the power sector, and one is in the highway sector.

The case studies focus almost exclusively on Indonesia: thirteen of the case studies are located in Indonesia, while one is in the Philippines.

The case studies include four private sector participation (PSP) transactions and ten public-private partnerships (PPP). There are two private sector participation transactions in the water sector, and two private sector participation transactions in the solid waste sector, which illustrate the provision of municipal infrastructure services through shorter term non capital intensive contracts. The other ten case studies assess capital intensive public-private partnerships with longer term contractual relationships.

The report summarizes the key lessons learned from several private sector participation and public-private partnership transactions completed to date, and recommends specific actions to the GOI for use in future private sector participation and public-private partnership projects. The recommendations in the report are focused on specific technical actions which are achievable in the near term.

### Private Sector Participation

Overall, the private sector participation case studies illustrate that for the past several years, municipal governments in Indonesia have been increasingly utilizing private sector firms to provide many routine services in basic urban infrastructure programs. Private sector participation transactions, especially those involving the daily provision of price-sensitive routine municipal services such as water supplies and solid waste management, are driven primarily by administrative and management considerations.

In the water sector, many PDAMs in the larger cities in Indonesia now contract with private firms for a portion of their scheduled replacement activities, routine repairs, maintenance, meter reading, and billing and collection services. This is a trend which is spreading rapidly.

Similarly, in the municipal solid waste management sector, many of the Dinas Kebersihans in the larger cities in Indonesia contract for a portion of the street cleaning, maintenance of drains, solid waste collection, transfer and disposal of solid waste, routine repairs, maintenance, and billing and collection services with private firms, and - more typically - with NGO's which have a long history of involvement in municipal solid waste.

The larger cities which are contracting for water and solid waste services are generally utilizing smaller local firms for well-defined routine tasks, often in portions of the administrative areas of the municipalities. The contractors typically provide low cost services, using labor intensive work practices.

The legal and regulatory framework for the contracts is typically well delineated, with enabling decrees and legal precedents stated in some detail. The amount of contract documentation is appropriate, with the quality and completeness of certain documents - such as the PDAM Tirtanadi Medan billing and collections contract - exceptional.

Institutionally and administratively, the amount of document processing involved in a service contract is generally substantial, particularly in the context of the short terms. The bid and award process is often based on established working relationships. From a financial perspective, the contracts generally provide for detailed payment schedules and adequate financial guarantees - the PDAM Surabaya incentive payment and bank guarantee provisions are outstanding in this regard.

The recommendations for private sector participation transactions are:

- **Legal and Regulatory Framework:** The terms of contracts should be reviewed, and lengthened where possible: the typical current contract terms - in the range of three months to one year - are too short to be financeable, particularly for contracts involving capital equipment.
- **Documentation:** More detailed, standardized contract documents with additional focus on operational issues such as performance guarantees and less focus on administrative issues, should be prepared. The contract developed by PDAM Tirtanadi Medan for billing and collection services is an example in this regard.
- **Institutional Factors/Relationships:** Contract administration and operational management should be stressed by municipal service agencies, along with the gradual adoption of analytical management practices.
- **Bid Invitation, Evaluation and Selection Process:** There should be increased focus on bidding rather than negotiated awards, with the time to award decreased, and scheduling of the bid and award cycle coordinated with municipal fiscal years.
- **Financial Issues:** Incentive based payment schedules should be developed for appropriate services, to focus on quality of services. In addition, financial guarantees, especially bank guarantees, could be used to enforce sanctions: the PDAM Surabaya billing and collection contracts are an example.

## Public Private Partnerships

The public-private participation case studies illustrate that for the past several years, Indonesia has been involved in a broad national agenda of private sector investments in urban infrastructure, including major programs in national roads/highways/transport, and power.

Public-private participation transactions tend to be complex: essentially, they are driven primarily by financial issues and financing arrangements. The key to structuring public-private participation transactions is generally to find a balance between the social equity agenda of the government (e.g., affordable tariffs) and the risk reduction requirements of the private investors and their lenders (e.g., take or pay provisions, financial guarantees, force majeure provisions).

For municipal infrastructure services in the PURSE Project sectors, the primary focuses have been on developing large BOT projects in water supply and, recently, on permitting BOOs in solid waste management.

To date, there has been one large scale BOT completed in local water supply. This is the Nusa Dua Water Supply System, in Bali, where a private consortium has developed a water extraction and distribution system for hotels and residential users. Several other major water supply projects are in active planning or negotiations. Most of these are to be financed as BOTs or other types of public-private undertakings. Among them are the Umbulan Spring bulk water supply project, in Pasuruan, East Java; the Semarang water supply project in Central Java; and projects in Serang (West Java), Lhok Semaue (Sumatra), and several other cities.

These large BOT water projects have proven to be difficult to negotiate. Among the major issues which the GOI has encountered are:

- (1) How to gradually raise water tariffs to levels which permit enough income to cover development costs without causing social problems;
- (2) How to control project costs, and limit the amount of private capital needed, by having the GOI fund selected elements of the construction;
- (3) How to phase projects based on both demand and project economics, so that the initial phases are feasible from an engineering perspective and financeable;
- (4) How to encourage the structuring of low cost private financing without providing general government guarantees.

In the solid waste sector, there are several public-private participation transactions in varying stages of completion. There is one completed BOO project in the solid waste sector: the Cibinong Chemical Waste Facility, West Java is a central industrial waste treatment facility, which is designed to treat and dispose of hazardous and toxic chemical wastes produced by industrial firms, commercial activity, medical facilities, and other sources throughout Java. The PT Wira Gulfindo transfer station, financed as a BOO, is

still in the demonstration phase, with no guarantees that it will become fully operational. The incinerator in Surabaya, based on technology manufactured by Cadoux of France, and financed by the BOT approach, is essentially operating as a public facility.

The recommendations for public-private partnership transactions are:

- **Legal and Regulatory Framework:** A BOT/BOO law, with detailed implementing regulations, should be prepared for larger projects in selected sectors.
- **Documentation:** A standard package of contract documents should be prepared for large BOO/BOT projects in the water sector, and made available to potential private investors.
- **Institutional Factors/Relationships:** A standard GOI approach to ownership issues should be delineated for large water projects, to assist in the bidding and structuring of projects involving complete water systems, including distribution facilities.
- **Project Planning and Delineation Process:** A standardized project development cycle, including required technical information, particularly prefeasibility analyses, should be defined and made available to potential private investors.
- **Bid Invitation, Evaluation and Selection Process:** A flexible bid process should be designed for larger water and solid waste projects.
- **Financial Issues:** This is an important area of focus: GOI policies on risk allocation, particularly as related to financial guarantees for large projects, should be defined and distributed as part of a BOO/BOT law.



---

## GLOSSARY AND LIST OF ACRONYMS

---

ADB	Asian Development Bank
ANDAL	environment impact report
BAPPEDA	regional development planning board
BUMN	enterprise owned by the central government
BUMD	enterprise owned by a local government
Dinas Kebersihan	municipal sanitation department
DKI	government of Jakarta
GOI	the government of Indonesia
Kabupaten	rural government; Tingkat II level
Kepres	presidential decree
Kotamadya	urban municipal government; Tingkat II level
LKMD	community security organization
LPA	final disposal site for solid waste
LPS	temporary disposal site for solid waste
NGO	non governmental organization
PDAB	water enterprise owned by a regional government
PDAM	water enterprise owned by a local government
PDK	solid waste enterprise owned by a local government
PEMDA	local or regional government
PPP	public-private partnership
Propinsi	province; Tingkat I level
PSP	private sector participation

PT	limited liability company
Pusat	central level of government
RT	neighborhood organization
RW	community organization
SKP	work order
Tingkat I	regional level of government
Tingkat II	local level of government

---

## SECTION I BACKGROUND

---

### A. Origin of Assignment

This report summarizes the data collection and analysis undertaken in the first year PURSE Project Workplan, in the Demonstration Projects Component of the Workplan, Task 2.02.

The PURSE Project is funded in part by the Private Enterprise Bureau of the U. S. Agency for International Development, under the terms of Contract No. 497-0373-C-00-3030-00.

This report is co-sponsored by the USAID/Indonesia Office of Private Enterprise Development, Urban Policy Division (PED/UPD), and the PURSE Steering Committee, composed of BAPPENAS, the Ministry of Finance, the Ministry of Home Affairs, and the Ministry of Public Works of the Government of Indonesia.

### B. Purpose of Report

This report has two interrelated purposes, both of which are designed to provide guidance to the GOI and the PURSE Project in the preparation of the demonstration projects which will be undertaken under the terms of the PURSE contract.

First is to review a series of illustrative existing private sector participation (PSP) programs and public private partnership (PPP) projects in Indonesia and selected other ASEAN countries. The review consists of fourteen case studies of completed PSP and PPP transactions in the water, wastewater, solid waste, power, and highways sectors. The review delineates patterns of success and failure which appear in the case studies by sector and type of transaction.

The second goal is to extract the lessons learned from the case study review by identifying and analyzing the major issues faced to date in PSP and PPP transactions in Indonesia, providing suggestions to the GOI for advancing the PSP and PPP processes more readily, and recommending guidelines for future GOI sponsored PSP and PPP transactions in the water, wastewater, and solid waste sectors.

### C. Definitions

As used in this report, the term *public sector* denotes any governmental agency at a Pusat level, Tingkat I level, or Tingkat II level. Also included are enterprises owned by government, such as PDAMs and PDKs.

The term *private sector* includes privately-owned business enterprises, cooperatives, and private or community-based voluntary associations, such as RT/RW's, LKMD's, and other forms of partisipasi masyarakat.

In this report, *infrastructure projects* refer to any type of public, private, or public/private transactions, with a particular emphasis on public/private transactions in the water, wastewater, and solid waste sectors.

The terms *private sector participation (PSP)* and *public private partnership (PPP)* are utilized extensively in this report to categorize the principal types of infrastructure transactions which involve both the public and private sectors. Each of the terms is defined below:

*Private sector participation (PSP)* refers to any non-capital intensive infrastructure transaction in which a private entity provides a service under a contractual agreement with a governmental entity. There are many ways in which PSP can be structured: this report groups all forms of private sector participation (PSP) activities into two broad categories:

- *Service Contract:* This is a transaction whereby a private entity enters into a contract with a government agency to provide a specific, routine service such as repairs to pipes, scheduled maintenance of vehicles, collection of solid waste, meter reading, or engineering testing.

Typically, a service contract is short term, involves no significant private capital investment, is focused on a well-defined task (such as repairs to pipes, scheduled maintenance of vehicles, collection of solid waste, street cleaning, maintenance of drains, or engineering testing), is closely supervised and controlled by a government agency, and is limited to routine tasks.

A service contract may be utilized to procure specific services at lower cost, or with more flexibility, or for a shorter term than is possible through a government agency.

- *Operating Contract:* This is a transaction whereby a private entity enters into a contract with a government agency to provide a specialized and technically difficult service such as operating a water supply system, or providing management of a major organizational function such as bill collection.

An operating contract is typically medium term (say three to five years), may involve a significant amount of private capital investment (in the form of machinery and equipment, or staff training, or financing of contract obligations), addresses a wide functional agenda, transfers significant responsibility to the private entity, and is controlled by general oversight based on management standards.

Government agencies enter into operating contracts to acquire additional technical skills, management expertise, higher quality service, staff training,

and flexibility at low cost.

*Public private partnerships (PPP)* are a more complex form of private involvement, whereby a private entity participates in the development, financing and construction with the authorization and support of a governmental agency. Because they generally include the investment of significant private capital, public private partnerships typically result in the government and private business firms becoming partners. This report defines two forms of private sector participation (PSP):

- *Build/Operate/Leasehold Transfer (BOT)*: This is a contract whereby a private entity is responsible for the financing, construction and operation of an infrastructure facility during a leasehold period. During the leasehold period, the private entity owns the facility. At the end of the lease period, ownership of the facility is transferred to the government agency.

The BOT approach is used as a means of substituting private investment capital for public funds in the financing of infrastructure. The provision for the transfer of the facility to public ownership at the end of the leasehold period permits the government to control the operation of the facility, and to eventually add the project to its asset base.

- *Build/Own/Operate (BOO)*: This is a contract whereby a private entity is responsible for the financing, construction and operation of an infrastructure facility. In addition, the private entity owns the facility in perpetuity.

The BOO approach is used to permit complete privatization of selected infrastructure facilities in exchange for private acceptance of a wide range of risk, based on public policy considerations. The provision for the continuation of private ownership, typically in a regulated environment, is designed to assure standards of construction and maintenance.

The *project development cycle*, as used in this report, describes the principal activities involved in the planning, financing and construction of an infrastructure facility through to initial operations:

- Initial Planning: identification of the project.
- Concept Plan: delineation of the main elements of the project, preliminary engineering.
- Approved Plan: prefeasibility report.
- Bid and Selection Process: invitation, prequalification, TOR and RFP, submittals, evaluation of proposals, selection, MOU.
- Financing Plan: feasibility analysis for private financing.
- Negotiations: agreement on business terms.
- Agreement: execution of documentation on agreement.
- Construction: financing and construction of facility.
- Commencement of Operations: certification of facility.

#### **D. Methodology**

The approach utilized in organizing the analysis, identifying the case studies, collecting and evaluating the data, and framing the lessons learned is summarized below. The principal work steps were:

- Reviewed the organization, administrative procedures, budget and financial systems, and regulatory practices of the public entities involved in water, waste water, solid waste, power, highways and mass transport in local, regional and central government in Indonesia, to provide a context for the selection and preparation of case studies.
- Defined a set of analytical criteria for the case studies, to insure that the case studies would be assessed utilizing a standard approach and that the projects included in the case studies would provide a representative sample of sectors, types of transactions (ie, non-capital intensive contracts and capital intensive projects), types of private sector participation programs (i.e., operating contracts and service contracts) and public private partnerships (i.e., turnkeys, BOOs, and BOTs), sizes of cities, geographic areas, and project sizes.
- Delineated standard formats for the presentation of the data and information in typical case studies.

For private sector participation (PSP) transactions, the following format was utilized:

- **Summary:** a brief recapitulation of the rationale for the transaction, type of transaction, and current status.
- **Background and History to Date:** rationale for contracting, description of transaction, principal steps in the transaction, current status.
- **Terms of Contract:** parties involved and roles, type and term of contract, description of management responsibilities and controls.
- **Payment Structure:** type, basis, and method of payment.

For public private partnership (PPP) transactions, the following format was utilized:

- **Summary:** a brief recapitulation of the project rationale, type of project, and current status.
- **Background and History to Date:** project rationale, description of project, principal steps in the project development cycle, construction/completion schedule, current status.

- Legal Structure: parties involved and roles, type and description of legal entity which owns and operates the project, management responsibilities and controls, type and term of agreement.
- Market Considerations: a review of any relevant issues related to demand, tariffs, and elements of market risk.
- Physical/Engineering Factors: size and type of facility, any innovative engineering and/or technology.
- Financial Structure: estimated development costs, total investment, financial feasibility, means of financing.
- Researched available sources through review of published information and interviews, and created a preliminary listing of approximately 45 projects for case studies.
- Collected data on potential case studies to ascertain the availability of documents required for the preparation of case studies. The data included contractual documents, financial projections and reports, appraisals and market analyses, engineering studies, and lender files. Sources utilized included the GOI, private investors, other ASEAN and American sources, lenders such as Indonesian banks and pension funds, foreign longterm lenders, and multilateral lenders, field trips to selected cities in Indonesia, and travel to Singapore, Malaysia and Hong Kong. All data for the report was collected in mid to late 1993: all conclusions in this report are based on information available by late 1993.
- Compiled the data for the final set of case studies in the standard format for presentation and completed the analysis.

#### **E. Report Organization**

This report contains an executive summary, three principal sections and attached technical annexes. First is the *executive summary*, which provides an overview of the case studies, and presents the major policy findings and recommendations. Next is the *glossary and list of acronyms*. This is *section 1*: it covers the origin of the assignment, the purpose of the report, definitions, methodology, and report organization. In *section 2* are presented the fourteen case studies of transactions in the water, wastewater, solid waste, power, and highways sectors. The lessons learned are delineated in *section 3*, which provides findings and conclusions, and recommendations. Appended are the *annexes*.

---

## SECTION II CASE STUDIES

---

This section of the report presents case studies of fourteen infrastructure transactions in the water, wastewater, solid waste, power, and highways sectors. The case studies are designed to illustrate a variety of project types, sizes, locations, financing arrangements, legal structures, and contractual relationships.

Of the fourteen case studies, four are in the water sector, one is in the wastewater sector, five are in the solid waste sector, three are in the power sector, and one is in the highway sector.

The case studies focus almost exclusively on Indonesia, to provide extensive data on trends in Indonesia: thirteen of the case studies are located in Indonesia, while one is in the Philippines.

The case studies include four private sector participation (PSP) transactions and ten public-private partnerships (PPP). There are two private sector participation transactions in the water sector, and two private sector participation transactions in the solid waste sector, which illustrate the provision of municipal infrastructure services through shorter term non capital intensive contracts. The other ten case studies assess capital intensive public-private partnerships with longer term contractual relationships.

### A. Water

The four case studies of transactions in the water sector are: (A1.) the PDAM billing and collection system, in Surabaya; (A2.) the PDAM service contracts, in Medan; (A3.) the Nusa Dua water supply system, in Bali; and (A4.) the Umbulan Spring water supply project, in Pasuruan, East Java.

Two of the case studies are private sector participation transactions: (A1.) the PDAM billing and collection system, in Surabaya; and (A2.) the PDAM service contracts, in Medan. The other two are public-private partnerships: (A3.) the Nusa Dua water supply system, in Bali; and (A4.) the Umbulan Spring water project, in Pasuruan, East Java.

The provision of water in urban areas in Indonesia is the responsibility of local and regional water authorities called *Perusahaan Daerah Air Minum* (PDAM). The PDAM system, which includes approximately 275 PDAMs, is a relatively new creation.

The PDAMs are designed statutorily to become self sustaining entities with their own sources of revenues, the ability to raise capital and operating funds independently from public and private sources, and the authority to contract with private sector firms for services. A number of PDAMs currently contract with private firms for routine functions such as repair services, meter reading, equipment maintenance, and billing and collection



activities.

## **A1. PDAM Billing and Collection System, Surabaya**

### **A1a. Summary**

Since 1985, the PDAM Surabaya has contracted with approximately 15 private firms to provide billing and collection services for approximately 70 percent of the PDAM's customer base, utilizing one year contracts and a progressive payment scale based on performance.

### **A1b. Background and History to Date**

Surabaya is the second largest city in Indonesia, with a 1993/1994 population of approximately 2,400,000 persons in the kotamadya, and a metropolitan area population of approximately 4,000,000 persons. It is the economic and cultural center of East Java, and a major center of international trade.

The service area of the PDAM Surabaya encompasses the kotamadya, with an existing water supply capacity of approximately 4,500 liters per second. The PDAM provides piped water to an estimated 166,250 connections - of which some 130,000 are residential users - and some 5,000 standpipes. At an average of 5.5 persons per household and 200 customers per standpipe, the PDAM is providing piped water to approximately 70 percent of the residential population of the kotamadya.

The primary existing source of bulk water supply for the system is the Brantas River near Jagir Wonokromo, where water is processed at the Ngagel water treatment plant, which has a capacity of approximately 3,000 liters per second. Also available is the first phase of the Karangpilang water treatment plant, on the Surabaya River, which is to be designed in three phases, for an eventual capacity of 6,600 liters per second.

During the past several years, the PDAM Surabaya has increasingly used private sector participation in the provision of its services. The PDAM now contracts with private firms to provide billing and collection services, accounting activities, construction of physical works and facilities, and larger scale repairs. In addition, the PDAM is currently assessing the potential of utilizing the Jakarta meter reading system, which uses private contractors.

The PDAM Surabaya began to use private sector participation to provide billing and collection services with the issuance of the *Keputusan Direksi PDAM Kotamadya Dati II Surabaya* Number KPTS/30/411.61/85, dated April 23, 1985, which permits private firms as contractors for billing and collection, describes the major elements of the contracting program, and delineates a progressive payment scale based on performance.

Currently, the PDAM Surabaya contracts with approximately 15 private firms to provide billing and collection services for approximately 70 percent of the PDAM's customer base. Essentially, the contractors are responsible for all but the large institutional and governmental customers: consequently, the primary focus of the program

is the residential customer base.

Contractors are selected on a competitive basis, using a set of criteria which focus on quality of service, management ability, and collection efficiency. The current group of 15 contractors has been relatively stable for most of the past several years, with little turnover: in the past three years, only a few of the firms have been changed (the turnover was estimated at perhaps two or three firms by PDAM staff).

The contractors tend to be smaller firms with a detailed working knowledge of the PDAM customer base, specializing in the operational details of billing and collection. They provide direct services to PDAM customers, and act as PDAM liaisons, and know the customers well.

The Surabaya billing and collection contracts are a stable, predictable business for responsive and well managed contractors. Operationally, each of the contractors is assigned a subarea within the service area of the PDAM. Every month, the PDAM provides the bills for each subarea to each contractor, which delivers them directly to the customers. The contractor then contacts the customers directly to collect payment.

Collection results suggest that the system has been successful, with current average reported collections in the range of 95 percent of the total amounts billed, and much of the nonpayment related to the turnover or vacation of residential rental units.

Bad debts which the contractors are unable to collect are transferred back to the PDAM after an agreed upon period; the PDAM takes responsibility for collection at that point.

Overall, the reaction to the program from both the management of the PDAM and the customers is reported to be positive. Several other PDAMs have reviewed the program for use in their service areas. The PDAM Medan adapted portions of the program in its private sector billing and collection contract.

#### **A1c. Terms of Contract**

There are approximately 15 private firms acting as billing and collection contractors for the PDAM Surabaya. All have essentially the same standard form of contract, supporting financial and business documentation, payment schedule, and bank guarantee.

The *Surat Perjanjian Kerja*, or standard PDAM service contract for billing and collection, is a simple, brief document which identifies the parties, defines the term and dates, outlines the responsibilities of the contractor, and describes sanctions (Annex A contains a standard form of contract).

The term of the standard contract is one calendar year, from January 1 through December 31. The contracts of firms which are performing satisfactorily are renewed annually on a routine basis. The PDAM management feels that the one year term of the contract permits the PDAM to readily monitor and enforce performance, and to assure sanctions.

To assure adequate payment to the PDAM, each contractor must provide a bank guarantee in approximately the full amount of the estimated payments due to the PDAM. The standard form of bank guarantee is issued for the calendar year of the contract period, and guarantees an estimated monthly collection amount for each of the twelve months in the year (Annex B contains a standard form of bank guarantee).

The PDAM reviews the collection trends on a monthly basis in part through a series of financial performance monitoring reports which are part of the PDAM's computerized financial and accounting program.

In addition, the PDAM assesses the operational performance of the contractors through its daily management systems. With approximately 15 contractors, the program also provides readily identifiable performance standards - for both comparison of various firms, and monitoring of the track record of individual firms.

#### **A1d. Payment Structure**

The payment structure for the contractors is progressive, based on the percent of total billings which are collected. The contractors must collect and remit at least 80 percent of the total amount due to be paid. Once the 80 percent minimum has been met, the contractors receive an increasing percentage of the amount collected, based on a graduated scale which moves up in steps with every 2.5 percent increase in collections.

The graduated payment scale is delineated in the *Lampiran Sura Keputusan Direksi PDAM Kotamadya Dati II Surabaya* Number KPTS/30/411.61/85, dated April 23, 1985. The private contractors are paid on a progressive scale, as is outlined in the payment schedule (see attached as Annex C to this report).

The percentage of the payment to the contractors is stepped up with every 2.5 percent of increased collections. The percentage of collections received by the contractors varies, from 0.5 percent of the amount collected up to 70 percent of the total billings due, to 3.1 percent of the amount collected from 87.5 percent to 90 percent of the total billings due, to 4.3 percent of the amount collected from 97.5 percent to 100 percent of the total billings due. The methods of calculating the percentages collected are outlined in the standard form of contract.

Both the payment structure and the percentages have remained the same since the commencement of the program in 1985. This stable system has produced a predictable business environment which lends itself to smaller service contractors.

#### **A2. PDAM Service Contracts, Medan**

##### **A2a. Summary**

Since 1989, the PDAM Tirtanadi in Medan has contracted with a private firm to provide billing and collection services for the residential and commercial/industrial accounts of the PDAM's customer base, utilizing a three year contract and a progressive

payment scale based on collection percentages.

#### **A2b. Background and History to Date**

Medan is the fourth largest city in Indonesia, with a 1993/1994 population of approximately 2,000,000 persons in the kotamadya, and a metropolitan area population of approximately 2,600,000 persons. It is the economic and cultural center of North Sumatera, a province with an estimated 1993/1994 population of 7,400,000 persons. Medan is also one of the largest ports in the country, and a major center of international trade.

The PDAM serving the Medan area is the PDAM Tirtanadi. The service area of the PDAM encompasses the province of North Sumatera: it is the only Tingkat I PDAM in Indonesia. According to its staff, the PDAM is a Tingkat I entity for historical reasons: the area of North Sumatera surrounding Medan inherited a series of water supply systems and related infrastructure facilities serving not only the kotamadya, but also adjacent plantation areas and hill stations, constructed before 1945. At independence, it was decided to keep the system intact under the management of the province.

The PDAM has eight branches serving the areas of Medan and several adjacent population centers. The eight branches are: Utama Medan, Sei Agul, Medan Denai, Belawan, Sunggal, Padang Bulan, Deli Tua, and Berastagi. The governor is the ex-officio head of the board.

The focus of this case study is on the Medan branch of the PDAM. The service area of this branch is the essentially coterminous with the boundaries of the kotamadya, with an estimated 1993/1994 population of 2,200,000. The Medan branch of the PDAM has an existing water supply capacity of approximately 3,600 liters per second.

Currently, the Medan branch of the PDAM provides piped water to an estimated 185,000 connections - of which some 156,000 are residential users - as well as an additional unreported number of standpipes. At an average of 5.5 persons per household, the Medan branch of the PDAM is providing piped water to approximately 50 percent of the residential population of the kotamadya.

There are several sources of water for the Medan system, including extraction of ground water from wells and surface water from rivers. The two major existing sources of bulk water supply for the system: the Belawan River, which supplies the 1,500 liter per second Sunggal water treatment plant; and the Deli River, where water is processed at the Deli Tua water treatment plant, which has a capacity of approximately 1,400 liters per second.

Management of the existing system has been steadily improving during the past several years. There has been increasing coverage of the population served due to the expansion of the Deli Tua treatment plant, the development of five reservoirs, and the completion of a network of distribution mains.

In addition, the PDAM undertook a water loss reduction program in conjunction

with the activities of the Medan Urban Development Program (MUDP). As a result of the water loss reduction program, the percentage of unaccounted for water was reduced progressively from approximately 38 percent to 30 percent during the Medan Urban Development Program (MUDP I), and dropped again to approximately 24 percent during the Medan Urban Development Program II (MUDP II).

The Medan Urban Development Program (MUDP) activities have been financed in large part by the Asian Development Bank (ADB) via a combination of loans and technical assistance programs. The Asian Development Bank (ADB) loans provide for incremental increases to the water tariffs every two years. The most recent increase was in September 1992; another increase is scheduled for September 1994.

Plans for the expansion of the system through 2015 have been prepared as part of the MUDP, financed by the ADB. A water resources analysis by C. Lotti & Associates in 1992 proposed a three stage development program of surface water abstraction from rivers, providing approximately 3,000 liters per second of additional capacity per phase.

During the past five years, the PDAM has increasingly used private sector participation in the provision of its services. The PDAM now contracts with private firms to provide construction of physical works and facilities, and larger scale repairs, many routine repairs, meter reading, and billing and collection services.

For routine repair services, the PDAM typically retains two or three contractors at each branch. The contractors are selected by the branches, and are on call on a 24 hour basis to assure flexible, responsive service. Work orders are issued through *Surat Perintah Kerja* (SPK's), with payment on a time and materials system, based on the contractors' original bids.

The PDAM began to use private sector participation to provide billing and collection services in 1989. The first contract for services was issued at that time, between the PDAM and C.V. Multi Jasa, a firm which also provided computer services to the PDAM. The contract approved the retention of the firm as a contractor for billing and collection services, described the major elements of the contracting program, and delineated a graduated payment scale based on percent collections.

Originally, the contractor was selected on a negotiated basis, using an initial set of criteria which reportedly focused on quality and experience of staff, track record for service, management ability (including familiarity with computers), and collection methods. There was no competitive bid included in the selection process: the firm was known to the PDAM, and selected in part due to its track record on previous assignments.

The contract with the firm was extended in 1993 by the *Surat Perjanjian Kerja Sama Tentang Penagihan Kwitansi Air* Number /SPJN/KEU/93, between the PDAM and C.V. Multi Jasa. This document is a relatively detailed contract which delineates the responsibilities of the contractor, the dates for the monthly operational collection cycle, the basis and method of payment of the fee, administrative matters, and sanctions (see the document attached to this report for reference as Annex D).

Currently, the PDAM Tirtinadi is continuing to contract with C.V. Multi Jasa to provide billing and collection services to the PDAM's customer base in all eight — branches. The contractor is responsible for billing and collecting from all but the large institutional and governmental customers of the PDAM. The majority of the contractor's work is with the PDAM's residential customers.

The relationship between the PDAM and the contractor has been relatively stable for the past five years, since the beginning of the program: the contractor is the only firm which has been retained over the period to provide billing and collection services to the PDAM. The PDAM Tirtanadi billing and collection contract is a stable, predictable business for the contractor.

As a result of its work, the contractor now has a detailed working knowledge of the PDAM's financial and reporting systems, as well as extensive experience with its customer base and the operational details of its billing and collection activities.

Initially, the contractor also provided services to the PDAM related to computerized financial reporting systems. In 1993, when its initial contract was extended, these services were terminated by the PDAM via the adoption of *Surat PDAM Tirtanadi* Number 61/Dir/Keu/92, executed May 23, 1993.

Operationally, the contract provides for a regular monthly billing and collection cycle. Every month, the PDAM provides customer bills to the contractor, which delivers them to the customers. The contractor then contacts the customers to collect payment.

Collection results suggest that the system has been successful, with current average reported collections in the range of 96 to 98 percent of the total amounts billed, and much of the nonpayment related to the turnover or vacation of residential rental units. Bad debts which the contractor is unable to collect are transferred back to the PDAM after an agreed upon period; the PDAM takes responsibility for collection at that point. Overall, the reaction to the program from both the management of the PDAM and the customers is reported to be positive.

#### **A2c. Terms of Contract**

The terms of the current contract between the PDAM Tirtanadi and C.V. Multi Jasa are contained in the *Surat Perjanjian Kerja Sama Tentang Penagihan Kwitansi Air* Number /SPJN/KEU/93, which is the extension to the original service contract for billing and collection.

The contract is a complete, detailed document which delineates the operational standards of the program and monthly activities of the contractor at some length. Certain of the detailed operational contract provisions are clearly based on the experiences of the PDAM during the first several years of the program. In addition, the contract references an evaluation of contractor performance which was prepared after the completion of four years of billing and collection activity. The contract is attached to this report as Annex D.

The term of the contract is three years, for the period from the July 1993 billing cycle through the June 1996 billing cycle. The contract provides that the term can be extended essentially at any point during the contract period, for an unspecified length of time, provided that there is sufficient time to give three months' notice to the parties to the contract and to other interested parties. The PDAM management feels that the three year term of the contract is appropriate: it permits the PDAM to adequately monitor and enforce performance, and to undertake any necessary sanctions.

The contract specifies that C.V. Multi Jasa will work in all eight branches of the PDAM, and will provide the same scope of services in each branch. The eight branches are all listed in the contract.

Operationally, the contract is quite explicit: it describes the steps in the monthly billing cycle, identifies specific dates for completion of tasks (including provisions for holidays and similar occurrences), and prescribes detailed procedures for certain elements of the billing and collection process where consistent financial reporting and accounting controls are needed (i.e., procedures for lost bills, timing and reporting of bank deposits, mechanics of enforcement of sanctions involving the contractor's bank guarantee).

The monthly billing and collection cycle is well defined in the contract. Between the fourth day the last day of each month, the PDAM is obligated to send the contractor the bills for the preceding month. It appears from the contract language that the PDAM sends the bills to the contractor in batches over a period of approximately three weeks. The contractor may collect the bills between the fifth day of each month (i.e., the day after it receives the initial batch of bills) and the twenty sixth day of the following month. As the contractor collects, it must deposit the collections in a specified PDAM bank account during the same day on which the collections have been received. When the collections have been completed, the contractor must send the PDAM a report outlining the status of collections. The report must list any uncollected bills, and the reasons for the noncollections.

The contract provides for a series of relatively rapid and automatically enforced sanctions, which focus on the contractor's payment and its bank guarantee. The sanctions appear to be structured to encourage the contractor to stay on schedule, to report on each stage of the monthly cycle, and collect promptly. Generally, the sanctions are defined carefully, with provision for exceptions and recalculations as appropriate.

To assure adequate payment to the PDAM, the contractor must provide a bank guarantee in approximately the full amount of the estimated payments due to the PDAM. The form of bank guarantee is issued for the period of the contract, and essentially guarantees an estimated monthly collection amount for each of the months in the contract period.

The PDAM reviews the collection trends on a monthly basis in part through the series of financial reports which were mentioned previously. These reports are part of the PDAM's computerized financial and accounting program. It appears that the contractor must provide a significant amount of ongoing data and computer files which are inputted into the PDAM's reporting systems, and that the contractor must maintain a

substantial computer capacity. In addition, the PDAM assesses the operational performance of the contractor through its ongoing management systems: these systems provide performance standards for monitoring the track record of the contractor.

#### **A2d. Payment Structure**

The payment structure for the contractor is progressive, based on the percent of total billings which are collected. The contractor must collect and remit at least 80 percent of the total amount due to be paid. Once the 80 percent minimum has been met, the contractor receives an increasing percentage of the amount collected, based on a graduated scale which moves up in steps with every percent increase in collections.

The graduated payment scale is delineated in a table which is part of the text of the *Surat Perjanjian Kerja Sama Tentang Penagihan Kwitansi Air* between the PDAM Tirtanadi and C.V. Multi Jasa, Number /SPJN/KEU/93, dated August 25, 1993 (see attached as Annex D). As is outlined in the payment schedule in the contract, the private contractor is paid on a progressive scale, from 3.02 percent of the amount collected at 80 percent of the total billings due, to 4.07 percent of the amount collected at 90 percent of the total billings due, to 6.12 percent of the amount collected at 100 percent of the total billings due.

The payment structure in the contract has reportedly remained essentially the same since the commencement of the program in 1990. The percentages were adjusted in the 1993 contract extension; the extension contains provision to adjust the percentages periodically, based on changing economic and business conditions or other factors.

### **A3. Nusa Dua Water Supply System, Bali**

#### **A3a. Summary**

This water extraction and distribution system for hotels and residential users in Bali was developed as a Build/Operate/Transfer (BOT) project, using a joint venture between the PDAM Badung and a private consortium. The first phase of the project is completed and operational, with subsequent work to be undertaken in a second phase.

#### **A3b. Background and History to Date**

Perusahaan Daerah Air Minum Kabupaten Daerah Tk. II Badung, Denpasar, Bali (PDAM Badung) is the local water authority responsible for providing water supplies to the Kabupaten Badung in the southern portion of Bali.

The kabupaten encompasses a relatively long and thin area extending from the southern tip of Bali, to the area of Bon some 20 kilometers north. The kabupaten has a land area of 418.52 square kilometers with a 1992 population of approximately 272,513 persons (from a PDAM estimate), and includes the city of Denpasar, the beach resort areas of Nusa Dua and Kuta, and several adjacent residential areas to the north of Denpasar.



For the past several years, the area of the kabupaten has experienced very rapid economic growth and consequent population increases due to the continued expansion of its tourism industry. The expansion of the area's tourism industry is expected to continue indefinitely, causing further population increases. As a result of this growth, the area's demand for water is projected to grow substantially for the foreseeable future.

Local Tk. II officials recognized years ago that assuring the development of water supplies for the continued growth of the tourism industry was a key element in encouraging the expansion of the area's economic base. In the 1980's, local Tk. II officials and the PDAM, in conjunction with appropriate Pusat level officials, made several attempts to develop water supplies using traditional methods of governmental financing.

In 1990, the Tk. II and Pusat officials decided to pursue financing of water supply facilities through the creation of a public/private partnership, based on the policies delineated in Permendagri No. 4 of 1990, dated March 19, 1990. This ministerial decree, promulgated by the Minister of Home Affairs, permitted local government enterprises to form joint ventures with third parties.

An interdepartmental team composed of Tk. II officials, and a second team composed of Pusat level representatives, were established to structure a proposal for a public/private water entity. During their work, the teams reviewed a wide variety of technical reports and other documents to assess the feasibility of forming a public/private entity to participate in the PDAM Badung's water supply program, and considered several potential legal and institutional models. The teams were exploring uncharted territory: when they were in the process of their review, there had not yet been a public/private joint venture entity formed for water supply in Indonesia.

Both teams concluded that a public/private structure was feasible, and recommended the formation of a public/private joint venture limited liability company, initially for the tourist resort area of Nusa Dua, with extension to the Kuta tourist resort area.

In addition, the feasibility study recommended that an extensive cross-subsidization program be included in the joint venture provisions, to support delivery of affordable water supplies to lower income areas.

Based on these recommendations, the PDAM proceeded to search for a private sector joint venture partner. The steps in the selection and negotiation process were:

1. Preparation of feasibility study
2. Selection of private sector partner
3. Creation of memorandum of understanding
4. Completion of joint venture agreement

Upon completion of the negotiations, the joint venture was granted a concession for a period of twenty years in the area designated as area 3 in Figure 1. The partners began construction of the expansion to the Tukad Ayung treatment plant in late 1991. Construction of the new installation, called Takud Ayung II, was completed at the end of

1992. Operations began in January 1993.

### A3c. Legal Structure

The joint venture is in the legal form of a limited liability company, P.T. Tirtaatha Buanamulia, which was formed to manage the development of facilities and all ongoing operations to provide water supplies in the concession area. This entity is owned 55 percent by three private partners, and 45 percent by the PDAM, with percent ownership reportedly based pro rata on the value of equity contributed to the venture.

The 55 percent private ownership interest is based on contributions of private capital in the form of cash and letters of credit required to develop and operate Tukad Ayung II, and to improve and extend the distribution system in the concession area. The interest is held by three partners:

- |    |  |            |
|----|--|------------|
| 1. | P. T. Mahasara Buana, from Jakarta         | 30 percent |
| 2. | P. T. Intan Dyandra Mulia, from Jakarta    | 20 percent |
| 3. | P. T. Dewata Artha Kharisha, from Denpasar | 5 percent  |

The PDAM 45 percent ownership interest is based on the value of its contributions to the venture: these include the recently constructed Tukad Ayung I treatment works, the balance of the existing PDAM system in the concession area, service rights, and rate compensations.

The joint venture is managed by two boards:

1. The Board of Commissioners (which functions essentially as a board of directors in a US legal context) sets policy and reviews broad issues affecting the direction of the joint venture. This board is composed of three public members appointed by Tk. II level government, with the Bupati of Kabupaten Badung as the President Commissioner, and two private members.
2. The Board of Directors (which functions essentially as a management committee in a US legal context) controls the operations of the joint venture. This board is composed of three private directors, one of whom is the President Director, and two public directors.

The life of the legal entity is initially described as 20 years, with provision for subsequent extensions upon agreement of the parties. The division of any profits is to be based pro rata upon percentage ownership in the venture. All assets of the entity revert to the PDAM upon dissolution of the joint venture.

The principal elements of the legal structure of the transaction are documented in the *Kesepakatan Bersama* and the *Kesepakatan Membentuk Perusahaan Patungan*, between the PDAM and the private consortium. The two documents, which also delineate the basic business terms and financial structure of the transaction as originally proposed, are attached to this report as Annex E.

### **A3d. Market Demand**

PDAM Badung has generally increased its water supply production on a year to year basis since its founding in 1976, to meet strong rises in water demand. In 1976, there were approximately 5,400 connections to the system, with a total annual production of 2,668,205 cubic meters. By 1992, there were approximately 27,100 connections and 24,444,480 cubic meters of total production. Reported leakage varied from 27.6 percent to 41.6 percent during the period 1976 - 1992, averaging in the low 30 percents.

Demand for water in the service area of the PDAM is expected to increase rapidly through 2000. PDAM Badung estimated in its Profil PDAM 1992 that total water demand in its current service area would increase from 750 liters per second in 1991, to 1,350 liters per second in 1995, and to 1,950 liters per second by 2000. Of this total, the demand from the existing kotamadya Denpasar area was estimated to account for the entire 750 liters per second in 1991, increasing to 1,050 liters per second in 1995, and to 1,450 liters per second by 2000. The demand from the concession area in the beach resorts of Nusa Dua and Kuta was projected to be 300 liters per second by 1995, increasing to 500 liters per second by 2000.

### **A3e. Physical/Engineering Factors**

In 1991, before the commencement of the development activities of the joint venture, the PDAM Badung water supply system had a total production capacity of approximately 750 liters per second. Of this total, the system produced approximately 450 liters per second from deep wells and some 300 liters per second from the Tukad Ayung I facility. Tukad Ayung I, a modern, recently constructed facility, includes a barrage, lift pump station, treatment plant, reservoirs, and distribution system, draws from the Tukad Ayung River just north of Denpasar to provide water to the kotamadya Denpasar area.

The joint venture proposed to manage the existing Tukad Ayung I installation, to develop and operate the Tukad Ayung II expansion, to improve, extend and operate the distribution system in the concession area, and to participate in the estuary reservoir development project.

The first phase of the joint venture development program, the expansion of the Tukad Ayung installation, was begun in late 1991 and completed in late 1992; it became officially operational in January 1993. This project consisted of the expansion of the Tukad Ayung installation with the addition of a second 300 liter per second treatment plant called Tukad Ayung II, additional reservoir capacity, a transmission pipeline, and an initial distribution system. The capacity from Tukad Ayung II was to be provided to the concession area as the distribution system was improved and extended to the area.

By the end of 1993, the system in the concession area was reportedly serving seven luxury hotels and approximately 2,600 residential connections, with a 98 percent collection rate and some 29 percent leakage. The joint venture provides that 20 percent of the total water be supplied to lower income households: there was no information available on this aspect of the program.

In the second phase of the joint venture's activity, due to have started in October 1993, and be complete and operational in 1995, the primary focus will be improvements to the distribution system. These improvements will upgrade the existing distribution system and extend it so that it can serve all of Nusa Dua, Kuta, and the adjacent beach resorts of Tanjung Benua, Belang and Legian, as well as several contiguous residential areas. This phase will also complete the appropriate management activities, such as expansion of the billing and collection systems, needed to operate the system.

As a separate activity, the joint venture will participate in the development and operation of a portion of the estuary reservoir located in a saltwater mangrove wetland at the mouth of the Tukad Ayung river. The estuary reservoir, which is currently being developed by a French firm and is partially funded by a low interest French government loan, is currently scheduled to be completed and operational in two phases.

There are varying schedules for the completion of the river estuary - the official schedule is an initial 300 liters per second of production in 1994, and a second 300 liters per second in 1996. PDAM staff also reported a schedule of construction completion in mid 1995, with operations commencing upon desalinization in 1998. The joint venture will be provided 300 liters per second of this capacity on undisclosed terms.

#### **A3f. Financial Structure**

The joint venture entity is owned 55 percent by the three private partners, and 45 percent by the PDAM, with percent ownership reportedly based pro rata on the value of equity contributed to the venture. The division of any profits is to be based pro rata upon percentage ownership in the venture.

All assets of the entity revert to the PDAM upon dissolution of the joint venture. No operating information is yet available, reportedly, due to the recent commencement of the program.

The total capital cost of the phase one development included the appraised value of the existing Tukad Ayung I installation (this facility was contributed to the venture at a reported value of Rupiah 6.5 billion), and the development cost of Tukad Ayung II (reported at Rupiah 8.7 billion).

Reportedly, the private partners provided Rupiah 8 billion in equity for this phase, in the form of cash and letters of credit. No information is available on what portion of this development cost was financed, or on what terms.

In the second phase, there are reportedly approximately Rupiah 15 billion in improvements scheduled to be made to the distribution system. Of this total, approximately half is to be in the form of a loan. No specific information is yet available on financing for this phase, in terms of amounts, sources, or terms.

#### **A4. Umbulan Spring, Pasuruan, East Java**

##### **A4a. Summary**

This proposed water extraction and distribution system, which has been planned for several years, would include a spring capture to the southeast of Surabaya and a 62 kilometer long pipeline to a terminal reservoir. The project would supply water to Surabaya and the kabupatens Gresik, Sidoardjo and Pasuruan for residential and industrial areas. It is still in planning.

##### **A4b. Background and History to Date**

Umbulan Spring is one of largest and best known sources of spring water in East Java. It has long been a source of water for the eastern part of East Java, including Surabaya and the kabupatens Gresik, Sidoardjo and Pasuruan, and has long been identified as one of the principal potential sources of additional water for the city of Surabaya and adjacent areas of the region from Gresik south to Pasuruan.

In the early 1980's, the GOI designated the Umbulan Spring as a regional source of water supply to be developed by the East Java provincial government (PEMDA), with the involvement of the affected PDAMs and the creation of a regional water authority (PDAB).

The primary focus of the Umbulan Spring project, in terms of total water delivery, would be the Surabaya area: the city and the region need large amounts of water, and higher quality supplies than are available from current sources such as the Surabaya River and the Brantas River.

Surabaya is the second largest city in Indonesia, with a 1993/1994 population of approximately 2,400,000 persons in the kotamadya, and a metropolitan area population of approximately 4,000,000 persons. It is the economic and cultural center of East Java, and a major center of international trade.

The service area of the PDAM Surabaya encompasses the kotamadya, with an existing water supply capacity of approximately 4,500 liters per second. The PDAM provides piped water to an estimated 166,250 connections - of which some 130,000 are residential users - and some 5,000 standpipes. At an average of 5.5 persons per household and 200 customers per standpipe, the PDAM is providing piped water to approximately 70 percent of the residential population of the kotamadya.

The largest existing source of bulk water supply for the PDAM Surabaya system is the Brantas River near Jagir Wonokromo, where water is processed at the Ngagel water treatment plant, which has a capacity of approximately 3,000 liters per second. Also available is the first phase of the Karangpilang water treatment plant, on the Surabaya River, with an initial reported capacity of approximately 1,000 liters per second. The Karangpilang water treatment plant is to be designed in three phases, for an eventual capacity of 6,600 liters per second.

The capacity of existing supply systems in the Surabaya region is clearly not adequate to meet the current demand for water. Currently, there is an urgent need for additional supplies to provide water for continuing expansion of the existing economic base of the region.

As the region's population and economic activity continue to increase, water demands will escalate further. Because of its size, quality, security, and relative proximity to Surabaya, the Umbulan Spring source has been the subject of several proposals. With a total estimated yield of 5,200 liters per second, it would provide a major new supply of water for the area.

The most recent series of proposals to develop Umbulan Spring date from the late 1980's. In 1988 the East Java Water Resources Study defined the long term water needs for Surabaya and the adjacent areas of East Java. The report from the study team identified Umbulan Spring as the first water supply project to be developed, and recommended that the project be structured as a Build/Operate/Transfer (BOT) to attract private investment capital to the project. The GOI concurred with the recommendation.

Bids for the development of Umbulan Spring as a BOT project were invited on July 9, 1988 via an open competitive process, with a submission date of November 1, 1988. The invitation to bid requested bids on two alternative capacities - 2,800 liters per second, and 4,000 liters per second. Several bids were received from BOT consortia, many of them including a mix of Indonesian and foreign partners. The bid from the Bromo consortium was accepted by PEMDA on August 21, 1989.

The Bromo consortium team consisted of P.T. Duta Comfact, MacDonald Project Development, Costain/Mowlem Umbulan Joint Venture, North West Water International, and the First National Bank of Chicago as financial advisors. Also involved in the transaction was the Export Credits Guarantee Department (ECGD) of the United Kingdom, which was proposed as a guarantor through its ATP program. P.T. Airlangga Tirta Bhakti and P.T. Amarta Karya were also initial members, but withdrew during negotiations. Negotiations between the GOI and the consortium continued until August 1991, when the lead construction firm of the consortium withdrew.

In early 1992, a new consortium was formed by North West Water International, with P.T. Duta Comfact, Transfield, Bakrie, Mott MacDonald, and the Bank of America (London) as financial advisors. The ATP program continued to be considered as a source of guarantees. Negotiations continued on a somewhat reconfigured proposal.

Due to the relatively high estimated development costs of the project, the negotiations focused primarily on the counterbalancing issues of tariffs and guarantees. Essentially, the government officials in East Java stressed the need for affordability in the tariff structure, and the private consortium sought guarantees for what it defined as passthrough costs.

On November 20, 1992, the consortium submitted its Conforming Proposal to the GOI, outlining the consortium's position on costs, tariffs, financial guarantees, PDAM/PDAB equity, and financing structure. Negotiations between the parties followed

the consortium's proposal. On January 23, 1993, the governor of East Java transmitted a statement of the PEMDA position to the consortium, regarding tariffs, financial guarantees, PDAMs/PDAB equity, and the take or pay contract provisions.

Substantive negotiations recommenced in March 1993, and continued through to June 1993. The principal issues in these final negotiations were PEMDA's concerns related to providing an affordable tariff structure without local guarantees; and the consortium's requirements, based on its financing plan, to have more flexibility in tariffs, a take or pay contract, and financial guarantees for passthrough costs. The consortium retained CS First Boston (Singapore) as additional financial advisors, to review several elements of the consortium's financing structure.

When it was decided that there would be no central government guarantees provided to the project (because it was a PEMDA project, with PDAMs/PDAB involvement), it was proposed by the GOI that operating surpluses be made available to the PDAMs/PDAB in lieu of guarantees, to assist the project. The consortium discussed this approach with its lenders, but was ultimately unable to structure bank financing for the project in this manner.

At the end of June 1993, negotiations were terminated by the GOI. At the termination of negotiations, several of the major issues related to bulk water charges and tariffs, take or pay contractual arrangements, financial guarantees, and force majeure remained unresolved.

#### **A4c. Legal Structure**

The transaction as proposed by both the GOI and the consortium was to be structured as a Build/Operate/Transfer (BOT) project. The legal owner of the water source is PEMDA: as a result, the basic legal relationships required for the transaction would originate with and be centered on PEMDA.

To structure the GOI portion of the transaction, it was proposed that a regional water authority (PDAB) be created. The PDAB would serve as a means of coordinating the participation of the PDAMs involved, and would provide PEMDA with a legal ongoing presence in the management of the BOT.

To undertake the BOT, a legal corporate entity composed of the members of the private consortium and the PDAB would have been created. The legal corporate entity would have been composed of the private parties of the consortium collectively holding a majority interest, and the PDAB holding a minority interest.

The interest participation of each of the parties would have been determined by equity capital contributed, or some analogous method of calculation. The means by which the PDAB equity would be defined were not resolved at the end of the negotiations.

The legal entity would have entered into a series of agreements to delineate the rights and responsibilities of the various parties to the transaction. Among the principal

documents for the transaction would have been a concession agreement, a bulk water sales agreement, a joint venture agreement, an operations and maintenance agreement, and a construction agreement. Additional documentation would have included various GOI applications and approvals; leases and agreements regarding provision of the site, access, power and related services; as well as lending, security, guarantee, and other financing documents.

From a legal perspective, among the central risk issues involved in the creation of the BOT transaction would have been: methods of defining base and projected bulk water tariffs, a method (such as a take or pay contract) to provide a minimum bulk water uptake, a means of guaranteeing payment for water, mechanisms to address currency-related risks, and definitions of responsibilities for force majeure events. These issues remained unresolved at the termination of the negotiation period.

#### **A4d. Market Considerations**

The area of East Java from Gresik through Surabaya to Pasuruan urgently needs additional water supplies to satisfy increasing demand from continuing rapid population growth and economic expansion.

The primary market consideration affecting the feasibility of the Umbulan Spring as a Build/Operate/Transfer (BOT) project was the need to structure the transaction so that it was financially self sustaining. Because the development costs of Umbulan Spring were relatively high, the bulk water charges - and eventual retail water tariffs to the end users - needed to be high enough to cover the debt service requirements and operating costs of the project.

#### **A4e. Physical/Engineering Factors**

From an engineering perspective, the Umbulan Spring project consists of a spring capture to the southeast of Pasuruan and a 62 kilometer long pipeline to a terminal reservoir at Wonocolo in southern Surabaya. The spring has long been identified as priority water source to serve the region of East Java centered on Surabaya.

The total potential capture from the spring has been projected at approximately 5,200 liters per second, making it one of the largest spring sources in Indonesia. In addition, the security and quality of the source have been projected to be excellent.

The pipeline from the spring would act as a major transmission main, supplying water along its route to the kabupaten Sidoarjo and Pasuruan. At its termination, the pipeline would supply the reservoir at Wonocolo in southern Surabaya. From that point, water would be distributed to Surabaya, and finally to the kabupaten Gresik to the north of Surabaya.

The water would be used for both residential areas and industrial estates, with reported ratio of approximately 80 percent residential and 20 percent other uses. The largest concentration of industrial uses served would be in Gresik.



#### **A4f. Financial Structure**

As proposed, the transaction was to be structured as a Build/Operate/Transfer (BOT) project. The period of the BOT was to be 15 years.

The total project cost of the latest proposal was reported to be approximately US\$180,000,000, with a debt:equity ratio of approximately 80:20. The foreign source component was approximately 55 percent of debt, with guarantees from British - and later Australian - sources.

All foreign source debt financed in US dollars by offshore banks was proposed to be at rates averaging in the range of 7.7 percent before guarantees, and approximately 9.7 percent after guarantees, fixed for 10.5 years plus two years of construction.

The onshore financing, provided in onshore US dollars, was proposed to be in a passthrough guarantee structure from private offshore banks to onshore banks. The effective cost of this money, including the onlending margin of the onshore banks, was to be approximately the same as that of the offshore financing. This financing was to be at variable rates.

The equity portion of the financing was to be provided in part by direct equity contributions from the members of the private consortium, with North West Water as the largest source of equity capital. In addition, there was to be provision for equity, initially from the ATP program and subsequently from Australian sources, to be used as an input or credit for the PDAB. The specifics of this mechanism were not completely defined.

One of the key factors affecting the financial structure of the transaction was the bulk water charges to be paid to the concessionaire by the PDAB. During the negotiations, the consortium agreed to consider an initial bulk water charge of Rupiah 628 per cubic meter, with provisions for subsequent increases to provide for future costs. PEMDA, focusing on the need to provide affordable water supplies, negotiated to place caps on future increases to bulk water charges. This issue was not completely resolved.

#### **B. Wastewater**

Currently, onsite wastewater investments are essentially private in Indonesia. GOI wastewater regulation is based primarily upon BAPPEDAL standards, which are in very their early stages, with some initial compliance programs beginning through current cases in the court systems.

The current focus of GOI wastewater compliance programs is on primary treatment by large, readily identifiable sources of effluent. These would typically include water intensive industries such as textiles, petrochemicals, pulp and paper, tanneries, dairies and breweries.

This section of the report contains one case study: (B1.) ESI Hybractor, Mojokerto, East Java. Although the case study is a one year pilot project, this report

treats it as a public-private partnership transaction, since the ultimate intent of the demonstration is to develop a model wastewater facility which can be installed in similar industrial facilities throughout Indonesia.

## **B1. ESI Hybractor, Mojokerto, East Java**

### **B1a. Summary**

The Hybractor is a pilot project which was set up in Mojokerto, East Java in March 1993 to assess a new technology - a hybrid high rate anaerobic reactor - for use in the cleanup of the Brantas River basin. The facility operated until January 1994.

### **B1b. Background and History to Date**

The 12,000 square kilometer Brantas River basin, located to the southwest of Surabaya, serves one of the most densely populated parts of East Java. Most of the basin's population of 15 million people live in urban areas along the banks of the 320 kilometer long river. Surabaya, the second largest city in Indonesia, is located at the mouth of the river.

During the past decade, the rapid industrialization of the Brantas River basin, particularly along the lower reaches of the river between Mojokerto and Surabaya, has resulted in substantial water quality deterioration. Among the industries discharging large amounts of effluent into the river are pulp mills, chemical plants, pharmaceutical facilities, breweries, and dairies. The waste products discharged include biological matter, refractory organics, chemicals and chemical byproducts, and heavy metals. The industrialization of the basin is expected to continue at a rapid pace for the foreseeable future.

Continuing rapid population growth and urbanization are the principal demographic trends projected for the basin. As the basin's population increases, and urbanization spreads, there will intensify pressure on the water resources of the Brantas River from various user groups.

The issues related to the Brantas River basin were put into a special focus in the late 1980s, when the Ministry for Population and Environment established the PROKASIH Program, or Environmental Monitoring Technology for the Cleanup of 20 Rivers. The objective of the program, which was managed by the Indonesian Research and Development Center for Urban Environment, was to develop a system for water pollution management of rivers at the national and regional levels.

To create a pollution management system, the program focused initially on the development of environmental monitoring methods for three specific rivers (one of which was the Brantas River), the creation of a carrying capacity model for the Musi and Brantas Rivers, and the use of the model as a tool for assisting in the cleanup of other rivers in Indonesia.

A key element of the PROKASIH program was a focus on upgrading national and regional staff expertise in industrial effluent monitoring, water quality monitoring, and industrial wastewater treatment. Because a lack of staff environmental monitoring resources was a potential constraint to the success of the program, the decision was made to seek external assistance. Western Australia was selected in part because of its sister province relationship to East Java.

In November 1990 Dr. Emil Salim, then the Minister of Environment, visited the government of Western Australia's Department of State Development to discuss environmental issues. The Department of State Development invited ESI, then known as the Campbell Group, to participate in the discussions.

Following the meetings with Dr. Salim, ESI prepared a proposal in January 1991, and forwarded it through the Department of State Development to BAPPEDA in East Java. The proposal was to test a hybrid anaerobic reactor, a new technology which ESI was then developing, as a method of treating the effluent from the Aneka Kimia distillery in Mojokerto. In March 1991, when BAPPEDA responded to the proposal affirmatively, ESI applied to the Australian Industrial Development Assistance Board (AIDAB) for assistance in financing the project.

In January 1992, after several discussions with AIDAB regarding funding for the project had proved unsuccessful, ESI applied for funding from the Australian Trade Commission (AUSTRADE) EIIP Opportunity Development Support program. In July 1992, the project was approved by AUSTRADE under the EIIP program.

When the financial support of BAPPEDA was received in November 1992, construction of the demonstration plant began in Australia. In February 1993 the plant was shipped to Mojokerto, where ESI engineers and technical staff commissioned it in March 1993. The plant operated in Mojokerto, treating the effluent from the Aneka Kimia distillery, until January 1994.

Currently, the results of the test period are being assessed by BAPPEDA, ESI, and AUSTRADE.

#### **B1c. Legal Structure**

The Hybractor is a demonstration project supported jointly by AUSTRADE and BAPPEDA/ESI together. The objectives of the project were to operate the facility for a period of approximately a year, and then to assess the results of the technology.

The project was 50 percent financed through the EIIP Opportunity Development Support program of the Australian Trade Commission (AUSTRADE), which provides grants and loans for business expansion. In addition, BAPPEDA and ESI funded 50 percent of the costs together.

Both the physical facility and the technology used in the pilot project were proprietary, belonging to ESI. ESI patented the process during the test period, receiving final patents on the Hybractor in early 1993. At the end of the test period, ESI retained

ownership of the equipment and the process. As a result, there was no permanent legal structure created for the project.

#### **B1d. Market Considerations**

The market for wastewater treatment products and processes in Indonesia is currently in its early stages. As BAPPEDAL continues to develop more specific standards, and as the scope of compliance programs is broadened, the markets for wastewater treatment will become structured. In this context, the Hybractor is a new proprietary technology which has been developed to address a relatively broad spectrum of wastewater applications.

The principal market issue which the Hybractor may possess is the significant reduction in the amount of time which it requires for anaerobic treatment, decreasing a typical 20 to 25 day cycle to 20 hours. Other potential market opportunities for the technology may include the its ability to treat a wide range range of waste strengths, compositions and volumes; various types of cost savings; and improved efficiency for startup and recovery cycles.

The Aneka Kimia distillery, on which the Hybractor was tested, provided a wide range of pollutants - including sugars, ketones, aldehydes, spent yeasts, and other alcohols - with very high biological oxygen demand and chemical oxygen demand.

If the Hybractor was able to reduce the BOD level of the wastewater treated to that of ordinary sewage, and to minimize the cost of the energy requirements of the anaerobic treatment process by producing significant amounts of methane to be reused as fuel, it may present a financially viable technology for Indonesian markets.

#### **B1e. Physical/Engineering Factors**

The Hybractor is a new technology which has been developed and patented by Environmental Systems International (ESI), of Perth, Australia. The technology is based on a new type of hybrid high rate anaerobic reactor process, which is designed to treat medium and high strength wastewater produced by water-intensive industrial uses such as textiles, petrochemicals, pulp and paper, tanneries, dairies and breweries.

Anaerobic treatment is a well known process. Essentially, anaerobic treatment — converts complex organic pollutants into methane and carbon dioxide, using a chemical process in the absence of oxygen. As a first step, the organic compounds are broken down into relatively simple acids by a mixture of specialized bacteria. Then the acids are further broken down into methane gas and other relatively benign compounds by a second mixture of methanogenic bacteria. The methane gas is extracted, and may be used as a fuel to offset some portion of the cost of the treatment; the other byproducts are captured and disposed of as waste sludge; the treated water is discharged or reused.

Based upon the results of initial trials, ESI found that the Hybractor process significantly reduced the amount of time traditionally required for anaerobic treatment, decreasing a typical 20 to 25 day cycle to 20 hours. Other potential operational

advantages of the technology which ESI hoped to assess included the treatment of a wide range of waste strengths, compositions and volumes; various types of cost savings; and improved efficiency for startup and recovery cycles.

The Aneka Kimia distillery, on which the Hybractor was tested, manufactures high grade ethanol from molasses. The distillery is a water intensive facility which produces several byproducts - including sugars, ketones, aldehydes, spent yeasts, and other alcohols - with a biological oxygen demand of 45,000 milligrams per liter and a chemical oxygen demand of 90,000 milligrams per liter. The effluent from the distillery places great demands on the river. As a comparison, domestic sewage typically has a BOD of 300 milligrams per liter, and BAPPEDA has set a target for discharges in to the river of 90 milligrams per liter BOD.

The technical objectives of the Hybractor test were to reduce the BOD level of the wastewater treated to that of ordinary sewage, and to minimize the cost of the energy requirements of the anaerobic treatment process by producing significant amounts of methane to be reused as fuel.

#### **B1f. Financial Structure**

The costs of the project were funded jointly by AUSTRADE (50 percent) and BAPPEDA/ESI together (50 percent). Because the project was structured as a one year test of a new technology, the funding sources were in effect short term grants for technology development.

The AUSTRADE portion of the financing was provided from the Engineering Industries Internationalization Program (EIIP) Opportunity Development Support program. This is a grant and loan program designed to assist medium-sized metal-based Australian engineering firms to increase their revenues through the development of new international business opportunities.

The program funding covers 50 percent of the cost of eligible activities: grants of up to AUS\$25,000 for the identification of international product or project-based opportunities, grants of up to AUS\$25,000 to develop international business or strategic marketing plans, and loans of up to AUS\$400,000 at negotiated rates and terms for opportunity development, including pilot projects such as the Hybractor.

The BAPPEDA/ESI portion of the financing for the project was a joint effort, based on a negotiated work program and testing schedule, which permitted ESI to continue the development of the Hybractor technology, and which provided BAPPEDA with a detailed case study of the operational aspects of bringing a major source of effluent into compliance with discharge standards.

### C. Solid Waste

There are five case studies in this section of the report: (C1.) Dinas Kebersihan Solid Waste Transfer Service Contracts, Surabaya; (C2.) Dinas Kebersihan Contracting Program, Jakarta; (C3.) Dinas Kebersihan Waste Incineration Plant, Surabaya; (C4.) P.T. Wira Gulfindo Sarana Transfer Station, Jakarta; and (C5.) Cibinong Hazardous Landfill, West Java.

Two of the case studies are private sector participation transactions: (C1.) Dinas Kebersihan Solid Waste Transfer Service Contracts, Surabaya; and (C2.) Dinas Kebersihan Contracting Program, Jakarta. Three are public-private partnerships: (C3.) Dinas Kebersihan Waste Incineration Plant, Surabaya; (C4.) P.T. Wira Gulfindo Sarana Transfer Station, Jakarta; and (C5.) Cibinong Hazardous Landfill, West Java.

Solid waste management in Indonesia is the responsibility of local government. Most of the solid waste agencies are local government departments called *Dinas Kebersihan*. In addition, local solid waste management authorities called *Perusahaan Daerah Kebersihan* (PDK) have been created in a few of the larger cities.

The *Dinas Kebersihan* (or municipal sanitation department) system is the traditional means of providing solid waste management services at the local level in Indonesia. Because of the multiple institutional relationships involved in the collection, transfer, and disposal of solid waste in most municipalities in Indonesia, the *Dinas Kebersihan* system has adapted to multi-layered processes.

The *Perusahaan Daerah Kebersihan* (PDK) concept is a relatively new creation. It is designed in part to assist local officials in creating more efficient, financially and institutionally transparent solid waste management systems patterned after private sector business practices. PDKs are analogous to the PDAMs which are now used in most urban areas in Indonesia to deliver local clean water supplies.

Very few of the very large local governments which would be permitted to create PDKs in the first phase of the new PDK system have yet decided to create PDKs, primarily due to the complexity and institutional inertia of the current *Dinas Kebersihan* system.

The PDKs are designed statutorily to become autonomous, completely self financing entities with their own sources of revenues, the ability to raise capital and operating funds independently from public and private sources, and the authority to contract directly with private sector firms for services under more flexible arrangements than those which are permitted to municipal government agencies.

## **C1. Dinas Kebersihan Solid Waste Transfer Service Contracts, Surabaya**

### **C1a. Summary**

The Dinas Kebersihan Surabaya contracts with six private firms to provide transfer of solid waste for approximately 30 percent of the PDAM's customer base, utilizing three month contracts and a payment scale based on a flat fee per estimated cubic meter of waste handled.

### **C1b. Background and History to Date**

Surabaya is the second largest city in Indonesia, with a 1993/1994 population of approximately 2,400,000 persons in the kotamadya, and a metropolitan area population of approximately 4,000,000 persons. It is the economic and cultural center of East Java, and a major center of international trade.

The Dinas Kebersihan (Sanitation Department) of the city of Surabaya was created in 1982 as a separate municipal function, to emphasize the importance of its role and permit its management to concentrate a single functional area. Previously, it had been part of the municipal public works department. The service area of the PDAM Surabaya encompasses the kotamadya.

Based on Dinas Kebersihan estimates, Surabaya generates approximately 1,700 tons per day of solid waste. Of this total, some 68 percent is generated by households, 16 percent by markets, 11 percent by commercial and industrial uses, and 5 percent by streets and open space. Since 1989 the amount of solid waste has been increasing by some three to four percent annually, or roughly twice as rapidly as population growth.

The current system for collection, transfer, and disposal of solid waste in Surabaya includes several types of processes for different types of waste, each involving the participants in a specific manner:

- Waste from *most large generators, industrial areas, and the port area* is collected and transferred to official final-disposal sites (LPA) by the entities which generate it.
- Waste from *large permanent markets* is collected by the market operators, which transfer it to temporary municipal transfer sites (LPS); the Dinas Kebersihan is responsible for its transfer to official final disposal sites (LPA).
- Waste generated by *residential areas and other smaller scale uses such as smaller shops, restaurants, local markets and smaller residential streets* is collected by community associations (RW/RT), which transfer it to temporary municipal transfer sites (LPS); the Dinas Kebersihan is responsible for its transfer to official final disposal sites (LPA).

- Waste generated by *hospitals* is the responsibility solely of the Dinas Kebersihan, which collects it, and transfers it directly to the municipal incinerator at the official final disposal site (LPA), where it is disposed of.
- Waste from *larger roads* is collected by the Dinas Kebersihan, which transfers it to temporary transfer sites (LPS), and then to official final disposal sites (LPA).

Currently, the Dinas Kebersihan estimates that approximately 64 percent of the total waste generated in Surabaya is collected and transferred to official final disposal sites (LPA); and an additional 11 percent is properly recycled by scavengers (generally by scavengers who are licensed by the municipality). As a result, some 75 percent of the total waste generated in the city is now properly managed.

The target service levels prepared by the Dinas Kebersihan for properly managed waste collection propose that the percentage of waste recycled remain constant at 11 percent of the total generated for the foreseeable future, while the percentage collected and transferred to official final disposal sites increase from the current 64 percent, to 66 percent in 1995, 79 percent in 2000, and 84 percent by 2010. This would increase total coverage to 77 percent in 1995, 90 percent by 2000, and 95 percent by 2010.

The Dinas Kebersihan in Surabaya has used private contractors both (1) to transfer solid waste from temporary transfer sites (LPS) to official final disposal sites (LPA), and (2) to sweep streets, for many years. For reference, the contracting program for street sweeping currently encompasses 25 private firms, which sweep some 431 kilometers of the 793 kilometers for which the Dinas Kebersihan is responsible (or 54 percent of the total). The focus of this case study is on the solid waste transfer contracts, which have a long history in Surabaya.

In the mid 1980's, the majority of the transfer and disposal of solid waste in Surabaya was accomplished by private firms. When the city of Surabaya took delivery of a fleet of vehicles and related solid waste equipment financed through the World Bank as part of the Surabaya Urban Development Program (SUDP) in 1987, the portion of waste handled by private firms decreased substantially - from approximately 60 percent in 1987 to some 20 percent in 1990.

Since 1990, the Dinas Kebersihan has again increasingly used private sector participation in the provision of its solid waste transfer services. Currently, the Dinas Kebersihan Surabaya contracts with six private sector firms to provide transfer of solid waste for approximately 30 percent of the waste which is its responsibility.

Essentially, the contractors are responsible for transfer from temporary transfer sites (LPS) to official final disposal sites (LPA), with a primary focus on waste generated by large permanent markets, residential areas and other smaller scale uses such as smaller shops, restaurants, local markets and smaller residential streets, as well as larger roads.

The Dinas Kebersihan plans to enlarge the portion of solid waste transferred by private contractors, from the current 30 percent, to 38 percent by 1995, to 53 percent by



2000, and to 73 percent by 2010.

Contractors are reportedly selected on a competitive basis, using a set of criteria which focus on cost, efficiency, and quality of service. However, the current core group of contractors has been essentially the same for most of the past several years. As the number of contractors has slowly grown, it has tended to do so by additions to the existing base, with little turnover. The contracts of the existing group of firms tend to be renewed automatically.

The contractors tend to be smaller firms: the contracts are closely managed by the Dinas Kebersihan and provide a stable, predictable business for responsive contractors.

Operationally, each of the contractors is assigned a subarea within the service area of the Dinas Kebersihan. The temporary transfer sites (LPS) from which the contractor is due to transfer solid waste are delineated in its contract, together with the estimated amount of solid waste in cubic meters. Every day the contractor performs its tasks as per its contract.

Overall, the reaction to the program from both the management of the Dinas Kebersihan and the customers is reported to be positive. Surabaya has won the Adipura Award for several years, and has gained a reputation as one of the cleanest cities in Indonesia. Several other cities have reviewed the Dinas Kebersihan's contracting program for use in their service areas.

#### **C1c. Terms of Contract**

There are six private firms providing transfer of waste for the Dinas Kebersihan Surabaya. All firms have essentially the same standard form of contract, a standard payment schedule, and substantial amounts of supporting financial and business documentation.

The standard Dinas Kebersihan service contract for solid waste transfer is a simple, brief document which identifies the parties, defines the term and dates, outlines the responsibilities of the contractor, and describes sanctions. The standard contract is in the form of a *Surat Perintah Kerja* (Annex F contains a standard form of contract).

The term of the standard contract is typically for three months. The Dinas Kebersihan assesses the operational performance of the contractors through its ongoing management systems. The contracts of firms which are performing satisfactorily have been renewed on a routine basis for the past several years. The Dinas Kebersihan management has indicated that the three month term of the contract is appropriate, and allows them to oversee the contractors.

#### **C1d. Payment Structure**

The payment structure for the contractors is based on a flat fee per estimated cubic meter of waste handled. The contractors must transfer the waste to an official final disposal site.

The payment to the contractor is delineated on the second page of the *Surat Perintah Kerja*, by posting the estimated number of cubic meters of waste to be transferred daily, and calculating the gross amount of payment per diem. The total amount of the contract depends on the exact term of the contract (see Annex F for a standard format).

## **C2. Dinas Kebersihan Solid Waste Contracting Program, Jakarta**

### **C2a. Summary**

The Dinas Kebersihan Jakarta contracts with 14 private firms to provide collection, transfer, and disposal of solid waste, street cleaning, and drain maintenance in 27 districts of the city encompassing approximately 10 percent of the administrative area in the city. The Dinas Kebersihan uses one year contracts and a payment scale based on a flat fee per estimated unit of work.

### **C2b. Background and History to Date**

Jakarta is the largest city in Indonesia, with a 1993/1994 population of approximately 9,500,000 persons. The government of the city of Jakarta is a special administrative zone, known as DKI (*Daerah Khusus Ibukota*, or special capital city area): it has the status of a province due to its size, complexity, and special national role.

The Jakarta region, known as Jabotabek (which includes, inter alia, the cities of Jakarta, Bogor, Tangerang, and Bekasi), has a 1993/1994 population of approximately 15,500,000 persons. Jakarta is the capital of Indonesia, its economic and cultural center, and a major center of international trade.

Solid waste management in DKI Jakarta is the responsibility of the Dinas Kebersihan (Sanitation Department) of DKI Jakarta. Dinas Kebersihan is a separate administrative function, to emphasize the importance of its role and permit its management to concentrate a single functional area.

Based on Dinas Kebersihan estimates, DKI Jakarta generates approximately 6,000 tons per day of solid waste. Of this total, some 65 percent is generated by households, 10 percent by markets and sidewalk vendors, 10 percent by commercial and industrial uses, 10 percent by public uses, and 5 percent by streets.

To accommodate its responsibilities, the Dinas Kebersihan maintains a fleet of approximately 650 trucks and other vehicles, an inventory of related equipment, waste containers, and temporary transfer sites. For disposal, there are two transfer stations in Cakung Cilincing, and the Bantar Gebang landfill in Bekasi, 40 kilometers to the east of Jakarta. A second landfill is planned in Tangerang, to the west of Jakarta.

Jakarta's existing system for the collection, transfer, and disposal of solid waste includes three principal components, with separate processes for each. The processes typically include several steps, involving the participants in a specific manner:

- Waste generated by *residential areas and other related smaller scale uses such as smaller shops, restaurants, local markets and smaller residential streets* is collected from individual storage boxes in small garbage carts by community associations (RT), which transfer it either to waste containers or to temporary municipal transfer sites (LPS); the Dinas Kebersihan is responsible for its transfer to the official final disposal site (LPA) at Bantar Gebang.
- Waste from *large permanent markets* is collected by the market operators (the largest of which is the government owned company PD Pasar Jaya), which typically transfer it to temporary municipal transfer sites (LPS); the Dinas Kebersihan is responsible for its transfer to the official final disposal site (LPA).
- Waste from *public uses such as larger roads and open space* is collected by the Dinas Kebersihan, which transfers it to temporary transfer sites (LPS), and then to the official final disposal site (LPA).

In addition to the Dinas Kebersihan system, waste from many large private generators (including larger scale commercial uses such as shopping centers, office buildings, and some apartment buildings), industrial areas, and the port area is privately collected and transferred to final disposal sites by the entities which generate it.

The Dinas Kebersihan handles approximately 65 percent of the total solid waste generated in the city by collecting it and transferring it to the official final disposal site at Bantar Gebang in Bekasi (LPA). An additional estimated 10 percent is properly recycled by scavengers. As a result, some 75 percent of the total waste generated in the city is now disposed of in an appropriate manner.

The Dinas Kebersihan in Jakarta contracts with 14 private firms to transfer solid waste from temporary transfer sites (LPS) to official final disposal sites (LPA), and to sweep streets and clear drains in 27 districts of the city. All contracts are bid and managed by district.

The Jakarta solid waste contracting program began in 1987, when the head of the private firm P.T. Sarana Organitama Resik personally approached the governor of Jakarta, and proposed that his firm be allowed to provide private solid waste collection and transfer on a limited basis to show DKI that private sector entities could provide higher quality solid waste services than the Dinas Kebersihan Jakarta. The governor agreed, and a pilot project was established in the Monas area of Jakarta Pusat. When the pilot project proved successful, the governor directed the Dinas Kebersihan to expand its contracting activities.

In 1988/1989, the Dinas Kebersihan contracted with five private companies for nine districts. In 1989/1990 the program was enlarged to 10 percent of the total administrative area of the Dinas Kebersihan; there were 82 proposals received for competitive bids on these contracts. Since 1990, the Dinas Kebersihan has again continued to expand the contracting program for solid waste transfer services. Currently, the program includes 14 private firms in 27 districts.

Operationally, each of the contractors is assigned a district, which is a large subarea within the service area of the Dinas Kebersihan. Typically, the contractors collect solid waste, transfer it to temporary transfer sites (LPS), and then to a final disposal site (LPA). In many instances, the contractors also provide street sweeping and drain maintenance services as well. The amount of estimated solid waste is delineated in the contract, together (as appropriate) with the estimated surface of streets in square meters.

The primary focus of the work of the private contractors is on waste generated by large permanent markets, residential areas and other smaller scale uses such as smaller shops, restaurants, local markets and smaller residential streets, as well as larger roads.

Contractors are selected on a competitive basis, using a set of criteria which focus on cost, efficiency, and quality of service. The current core group of contractors has been relatively stable for most of the past several years. As the number of contractors has grown, it has tended to do so by additions to the existing base, with little turnover.

Except for P.T. Sarana Organtama Resik, all the contractors tend to be smaller firms. Of the 27 districts currently under contract, P.T. Sarana Organtama Resik has 12; the other 13 contractors have the balance of 15 districts. The contracts are closely managed and provide a stable, predictable business for responsive contractors.

#### **C2c. Terms of Contract**

There are 14 private firms providing collection and transfer of waste, street cleaning and drain maintenance for the Dinas Kebersihan Jakarta. Because the size and characteristics of the areas, the solid waste management processes, and the scope of services performed differ from district to district, each of the firms may have a somewhat different contract for its services. However, all firms have similar forms of contract with calculations for periodic lump sum payments based on units of work, essentially the same payment schedule, and substantially similar requirements for large amounts of supporting financial and business documentation.

The typical Dinas Kebersihan service contract for solid waste transfer is a simple, brief document which identifies the parties, defines the term and dates, outlines the responsibilities of the contractor, calculates the monthly lump sum payment due the contractor based on estimated units of work such as cubic meters of solid waste to be collected or square meters of streets to be cleaned or drains to be maintained, and describes the sanctions.

The term of the typical contract is for a period not to exceed one year, with an expiration date of March 31 - the end of the DKI fiscal year. The actual term of the contract is dependent on the starting date since there is a statutory prohibition against contracts extending beyond the end of the fiscal year.

The Dinas Kebersihan assesses the operational performance of the contractors through its ongoing management systems. The contracts of firms which are performing satisfactorily have been renewed consistently. However, since Dinas Kebersihan regulations require competitive bids, there are bids submitted upon each renewal.

## **C2d. Payment Structure**

The payment structure for the contractors is based on a flat fee per estimated cubic meter of waste handled, or square meter of street cleaned, or square meter of drainage area maintained.

The Dinas Kebersihan sets the prices per unit of work and estimates the number of units involved; the private contractors prepare their own estimates of the units of work involved, and negotiate with the Dinas Kebersihan. The monthly payment to each contractor is delineated in its contract, based on the final outcome of the negotiations.

## **C3. Dinas Kebersihan Waste Incineration Plant, Surabaya**

### **C3a. Summary**

This project is the first large scale solid waste incinerator in Indonesia. The incinerator, manufactured by Cadoux of France and acquired by the Dinas Kebersihan Surabaya through a 10 year BOT contract, became operational in June 1991.

### **C3b. Background and History to Date**

Surabaya is the second largest city in Indonesia, with a 1993/1994 population of approximately 2,400,000 persons in the kotamadya, and a metropolitan area population of approximately 4,000,000 persons. It is the economic and cultural center of East Java, and a major center of international trade.

The Dinas Kebersihan (Sanitation Department) of the city of Surabaya was created in 1982 as a separate municipal function, to emphasize the importance of its role and permit its management to concentrate a single functional area. Previously, it had been part of the municipal public works department. The service area of the PDAM Surabaya encompasses the kotamadya.

Based on Dinas Kebersihan estimates, Surabaya generates approximately 1,700 tons per day of solid waste. Of this total, some 68 percent is generated by households, 16 percent by markets, 11 percent by commercial and industrial uses, and 5 percent by streets and open space. Since 1989 the amount of solid waste has been increasing by some three to four percent annually, or roughly twice as rapidly as population growth.

The current system for collection, transfer, and disposal of solid waste in Surabaya includes several types of processes for different types of waste, each involving the participants in a specific manner:

- Waste from *most large generators, industrial areas, and the port area* is collected and transferred to official final disposal sites (LPA) by the entities which generate it.

- Waste from *large permanent markets* is collected by the market operators, which transfer it to temporary municipal transfer sites (LPS); the Dinas Kebersihan is responsible for its transfer to official final disposal sites (LPA).
- Waste generated by *residential areas and other smaller scale uses such as smaller shops, restaurants, local markets and smaller residential streets* is collected by community associations (RW/RT), which transfer it to temporary municipal transfer sites (LPS); the Dinas Kebersihan is responsible for its transfer to official final disposal sites (LPA).
- Waste generated by *hospitals* is the responsibility solely of the Dinas Kebersihan, which collects it, and transfers it directly to the municipal incinerator at the official final disposal site (LPA), where it is disposed of.
- Waste from *larger roads* is collected by the Dinas Kebersihan, which transfers it to temporary transfer sites (LPS), and then to official final disposal sites (LPA).

Currently, the Dinas Kebersihan estimates that approximately 64 percent of the total waste generated in Surabaya is collected and transferred to official final disposal sites (LPA); and an additional 11 percent is properly recycled by scavengers (generally by scavengers who are licensed by the municipality). As a result, some 75 percent of the total waste generated in the city is now properly managed.

The target service levels prepared by the Dinas Kebersihan for properly managed waste collection propose that the percentage of waste recycled remain constant at 11 percent of the total generated for the foreseeable future, while the percentage collected and transferred to official final disposal sites increase from the current 64 percent, to 66 percent in 1995, 79 percent in 2000, and 84 percent by 2010. This would increase total coverage to 77 percent in 1995, 90 percent by 2000, and 95 percent by 2010.

As a part of the disposal element of the Dinas Kebersihan program, the kotamadya began studying the feasibility of acquiring an incinerator in 1986. In 1989, the kotamadya signed an agreement with P.T. Unicomindo Perdana to construct an incinerator based on technology from Cadoux of France.

The official rationale for the acquisition of the incinerator was the difficulty of purchasing additional land for the expansion of the final disposal site (LPA) at Keputih, Sukolilo in the east of the city. It was originally projected that the incinerator could dispose of up to 40 percent of the total solid waste generated by Surabaya.

The construction of the incinerator took approximately one and a half years, beginning soon after the execution of the agreement. The incinerator became operational in June 1991. Because of the high organic content of the solid waste, and its high moisture content, the plant has reportedly been run at less than its stated capacity, with the addition of petroleum to the process.

### **C3c. Legal Structure**

The incinerator is structured as a Build/Operate/Transfer (BOT) project, with the cost of the facility to be amortized across a 10 year period.

### **C3d. Market Considerations**

Because the project is essentially a public facility, accepting solid waste as part of the Dinas Kebersihan system, there are no significant private market considerations.

### **C3e. Physical/Engineering Factors**

The incinerator is located in a parcel in the final disposal site (LPA) at Keputih, Sukolilo in the east of the city. The facility consists of six continuous combustion stoker furnaces designed to operate 24 hours per day, seven days per week. The furnaces each have a stated capacity of approximately 34 tons per day, for a total capacity of 200 tons per day for the facility.

The waste is delivered to the plant by truck, and is deposited in an open pit. There is no sorting or recycling involved in the process. From the pit, the waste is lifted by two overhead clamshells - one for each three furnaces - and put into an incinerator hopper unprocessed. A hydraulic ram pushes the waste into the incinerator chamber.

The incinerated waste is collected, by means of a conveyor belt, and deposited into a truck which disposes of it in the adjacent landfill.

### **C3f. Financial Structure**

The total cost for the incinerator was reported to be in the range of Rupiah 30 billion - a relatively high cost for a diesel fired facility. The combination of high operating costs and below capacity performance has reportedly produced higher costs per ton than had been originally projected, which are borne by the Dinas Kebersihan as part of the BOT.

## **C4. P.T. Wira Gulfindo Sarana Transfer Station, Jakarta**

### **C4a. Summary**

The transfer station is located on a 2.5 hectare site on Jalan Raya Cakung Cilincing, to the east of Jakarta, on the route to Bantar Gebang. It is a modern process-oriented facility which became operational in 1993 as a demonstration project, to test the feasibility of the concept.

### **C4b. Background and History to Date**

Jakarta is the largest city in Indonesia, with a 1993/1994 population of approximately 9,500,000 persons. The government of the city of Jakarta is a special

administrative zone, known as DKI (*Daerah Khusus Ibukota*, or special capital city area): it has the status of a province due to its size, complexity, and special national role.

The Jakarta region, known as Jabotabek (which includes, inter alia, the cities of Jakarta, Bogor, Tangerang, and Bekasi), has a 1993/1994 population of approximately 15,500,000 persons. Jakarta is the capital of Indonesia, its economic and cultural center, and a major center of international trade.

Solid waste management in DKI Jakarta is the responsibility of the Dinas Kebersihan (Sanitation Department) of DKI Jakarta. Dinas Kebersihan is a separate administrative function, to emphasize the importance of its role and permit its management to concentrate a single functional area.

Based on Dinas Kebersihan estimates, DKI Jakarta generates approximately 6,000 tons per day of solid waste. Of this total, some 65 percent is generated by households, 10 percent by markets and sidewalk vendors, 10 percent by commercial and industrial uses, 10 percent by public uses, and 5 percent by streets.

The Dinas Kebersihan maintains a fleet of approximately 650 trucks and other vehicles, an inventory of related equipment, waste containers, and temporary transfer sites. For disposal, there are two transfer stations in Cakung Cilincing, and the Bantar Gebang landfill in Bekasi, 40 kilometers to the east of Jakarta. A second landfill is planned in Tangerang, to the west of Jakarta.

Jakarta's existing system for the collection, transfer, and disposal of solid waste includes three principal components, with separate processes for each. The processes typically include several steps, involving the participants in a specific manner:

- Waste generated by *residential areas and other related smaller scale uses such as smaller shops, restaurants, local markets and smaller residential streets* is collected from individual storage boxes in small garbage carts by community associations (RT), which transfer it either to waste containers or to temporary municipal transfer sites (LPS); the Dinas Kebersihan is responsible for its transfer to the official final disposal site (LPA) at Bantar Gebang.
- Waste from *large permanent markets* is collected by the market operators (the largest of which is the government owned company PD Pasar Jaya), which typically transfer it to temporary municipal transfer sites (LPS); the Dinas Kebersihan is responsible for its transfer to the official final disposal site (LPA).
- Waste from *public uses such as larger roads and open space* is collected by the Dinas Kebersihan, which transfers it to temporary transfer sites (LPS), and then to the official final disposal site (LPA).

In addition to the Dinas Kebersihan system, waste from many large private generators (including larger scale commercial uses such as shopping centers, office buildings, and some apartment buildings), industrial areas, and the port area is privately



collected and transferred to final disposal sites by the entities which generate it.

The Dinas Kebersihan handles approximately 65 percent of the total solid waste generated in the city by collecting it and transferring it to the official final disposal site at Bantar Gebang in Bekasi (LPA). An additional estimated 10 percent is properly recycled by scavengers. As a result, some 75 percent of the total waste generated in the city is now disposed of in an appropriate manner.

One of the key elements needed in the current system is methods of intercepting the flow of solid waste on the way to Bantar Gebang, via transfer stations. Because Bantar Gebang is located some 40 kilometers from central Jakarta, and reached on heavily trafficked roads, the development of transfer stations would significantly increase the efficiency of the trucks hauling the waste from collection sites.

To address this need, the governor of Jakarta invited private firms to submit proposals to develop a transfer station in October 1991. Four proposals were submitted. Two of the firms were unable to obtain financing for their proposals, and were eliminated from consideration. P.T. Wira Gulfindo, a private firm with substantial experience in solid waste management, was able to finance the project, and was selected. In December 1991, P.T. Wira Gulfindo was given approval in concept of its proposal from the governor.

P.T. Wira Gulfindo negotiated a business agreement with DKI, and the transfer station was developed during 1992. It became operational on a demonstration basis in 1993.

#### **C4c. Legal Structure**

The P.T. Wira Gulfindo transaction is structured as a Build/Operate/Own project, with an initial contract period of 15 years. During the initial contract period, P.T. Wira Gulfindo operates the facility on an essentially private basis, processing solid waste and disposing of it to Bantar Gebang.

The contract between PEMDA DKI and P.T. Wira Gulfindo is high risk in many ways. There are no take or pay provisions to enforce the acceptance of a minimum amount of solid waste by DKI. Without this provision, the contractor has no method of ensuring a minimum predictable flow of raw material, and revenue, to the facility. Since the financial success of the facility depends on consistent daily deliveries of solid waste, the lack of a take or pay provision is a major omission in the business transaction.

The agreement between PEMDA DKI and P.T. Wira Gulfindo sets initial tipping fees, and schedules negotiations to review the fees every two years. However, there are no provisions for indexed increases to the fees. This introduces an additional element of risk in the transaction, since there is no predictable long term revenue stream for the facility.

At the termination of the initial contract term, PEMDA may extend the contract on behalf of Dinas Kebersihan. If the contract term is not extended, the transfer station and all related equipment remain in the ownership of P.T. Wira Gulfindo, presumably to be used as a private business.

From a legal perspective, the transfer station is a relatively complex transaction, because P.T. Wira Gulfindo has received few guarantees from DKI Jakarta for the operation of the facility, and as a result has few means of adjudicating disputes or seeking redress of implied contractual obligations.

#### **C4d. Market Considerations**

Although the transfer station is developed through a series of agreements between PEMDA DKI and P.T. Wira Gulfindo, the transaction is basically structured as a private business enterprise, with P.T. Wira Gulfindo taking a substantial number of direct market risks.

First, P.T. Wira Gulfindo has a substantial direct financial involvement in the project, since the development of the facility reportedly is totally privately financed, with P.T. Wira Gulfindo reportedly providing much of the capital for the project as a direct equity contribution.

Next, P.T. Wira Gulfindo has no means of guaranteeing a minimum intake of solid waste to the facility, since the contract between PEMDA DKI and P.T. Wira Gulfindo has no take or pay provisions.

Further, although PEMDA DKI and P.T. Wira Gulfindo agreed to set the initial tipping fees, subsequent fees would be delineated through biennial negotiations, rather than by utilizing automatic provisions for indexed increases on a predetermined basis.

As a balance to these factors, the project is a Build/Own/Operate (BOO) transaction. If the initial 15 year contract is not extended, the transfer station and all related equipment remain in the ownership of P.T. Wira Gulfindo.

Based on this admixture of market-related risks, it appears that the principals of P.T. Wira Gulfindo have concluded that there is substantial market support for the transfer station, and that market issues which arise during the operation of the facility will be resolved.

#### **C4e. Physical/Engineering Factors**

The transfer station is located on a 2.5 hectare site on Jalan Raya Cakung Cilincing, to the east of Jakarta. The location was selected because the facility was designed to accept solid waste initially from the eastern parts of Jakarta, on the way to Bantar Gebang. The site plan is designed to permit high intensity utilization, with several transfer, compacting, and recycling activities ongoing simultaneously.

Operationally, the facility is patterned after standard state of the art transfer stations in Europe, North America, and other parts of Asia. It is a modern process-oriented facility which is scheduled to operate 12 hours per day, 7 days per week, 365 days per year.

There were proposed to be 45 to 50 employees, in fulltime equivalents, in the facility. Most of these were designated to be involved in expediting production, since many of the routine operations of the facility were to be performed by equipment such as the rams and the compactor. In addition, there were to be an unestimated number of scavengers involved at the facility.

The facility was designed to become fully operational on a demonstration basis, with an initial capacity of approximately 300 tons per day, within 12 months of its opening. Reportedly, this objective was generally met. The ultimate capacity of up to 1,000 tons of solid waste per day was to be reached after the end of the demonstration period.

An important part of the transfer station is the large compactor which serves a fleet of several specialized, high volume trucks with a capacity of 30 cubic meters each of compacted solid waste. The trucks are designed to be filled with compacted waste and driven to Bantar Gebang regularly, on a daily basis, to dispose of the waste from the facility.

The recycling unit is designed to sort and separate certain types of wood, metal, and plastic in the facility. This element of the transfer station is to use scavengers in close coordination with the intake area of the facility: the scavengers would sort the waste from the incoming trucks and containers as they enter the facility at the ramps and unloading areas.

#### **C4f. Financial Structure**

The Build/Operate/Own (BOO) agreement has a 15 year term. Essentially, the facility is a private business undertaking a substantial agenda of risks. Although it is regulated by PEMDA DKI, neither the Dinas Kebersihan nor any other part of the DKI government has any direct investment, or any direct liability, in the venture.

Reportedly, the development of the facility is totally privately financed, with P.T. Wira Gulfindo reportedly providing much of the capital for the project as a direct equity contribution.

The total estimated capital investment in the facility was initially estimated at approximately Rupiah five billion, including the facility itself and the principal capital equipment. The annual operating revenues were projected at approximately Rupiah 1.5 billion.

## **C5. Cibinong Chemical Waste Facility, West Java**

### **C5a. Summary**

This project is a central industrial waste treatment facility, which is designed to treat and dispose of hazardous and toxic chemical wastes produced by industrial firms, commercial activity, medical facilities, and other sources throughout Java. It is the first of its kind in Indonesia. The first phase of the facility, which includes a landfill and a stabilization plant for more volatile substances, is recently completed and in initial operations.

### **C5b. Background and History to Date**

The Cibinong chemical waste facility project was proposed in response to the need for a centrally located regional facility to treat and dispose of hazardous or toxic substances which are produced as industrial and commercial byproducts throughout Java.

The site is a former quarry, which was operated by a cement company. It lies between the Indocement and Semen Cibinong cement plants near the villages of Nambo and Bantarjati, in the Cileungsi district of the kabupaten Bogor. This area is just south of Jakarta, between the central portions of the Jakarta region and Bandung.

The site is well located: it has a central position in Jakarta/Bandung region, and also has convenient access to the Jagorawi toll road which connects Jakarta with Bogor and the Bandung area. Many of the newer, developing areas in the Jakarta region are within easy reach of the location. As the Jakarta region continues to expand, the new employment centers will be in the kabupaten Bogor, along the toll road.

From a geological and hydrological perspective, the site works well. It is located outside the Jabotabek aquifer system, and is in an area of natural clay soils, which are appropriate for a landfill since they do not naturally facilitate the transmission of water and other liquids.

The site was selected by the GOI for development as a hazardous landfill based on the conclusions of a series of planning studies prepared for the GOI. After several months of discussions with BAPPEDAL regarding environmental standards and management standards, the site was certified by BAPPEDAL.

Based on the provisions of the GOI planning studies, a private partnership composed of Waste Management International Plc (WMI) and P.T. Bimantara Citra proposed to develop the site in conformance with BAPPEDAL standards.

The landfill development was approved in a series of steps over a period of almost three years. First, the Governor of West Java approved the site for use as a PPLI-B3 facility on November 28, 1990. Negotiations on the specific uses for the site, the development program, and the operational program were undertaken across a period of several months. On February 2, 1993 then minister of population and the environment Emil Salim approved the agreements related to the development and operation of the

facility.

On July 12, 1993 the minister of the environment, Sarwono Kusumaatmadja presided at the official groundbreaking marking the beginning of construction on the facility.

The development of the site began in July 1993; the landfill was available for initial operations in December 1993. The very rapid construction process was facilitated by the detailed discussions undertaken during the approvals process, and by the familiarity of Waste Management International Plc (WMI) with landfill technologies and its experience with construction management techniques for similar projects.

### **C5c. Legal Structure**

In May 1992, Waste Management International Plc (WMI) and P.T. Bimantara Citra executed an exclusive collaborative agreement and formed an entity called Waste Management Indonesia as a joint venture partnership to undertake a series of projects in several rapidly expanding environmental sectors, including municipal solid waste, chemical wastes, waste water treatment, waste-to-energy, waste reduction, and recycling.

WMI is a subsidiary of Waste Management, Inc. of the United States, a major solid and hazardous waste management company. The Cibinong facility is the first project of the partnership.

The Cibinong project is a joint venture between WMI, Bimantara and the Government of Indonesia. For the two private sector partners, the venture involved the creation of a joint venture limited liability company for the project called P.T. Prasadha Pamunah Limbah Industri (PPLI).

The ownership of PPLI, the limited liability joint venture company, is distributed in the following manner:

Waste Management International Plc	70%
P.T. Bimantara Citra	25%
Government of Indonesia	5%

### **C5d. Market Considerations**

The Cibinong chemical waste facility project was proposed in response to the need for a central industrial waste treatment facility to process and dispose of hazardous and toxic chemical wastes produced by industrial firms, commercial activity, medical facilities, and other sources throughout Java.

Because it is the first facility of its kind in Indonesia, it is in effect assisting a creating a new environmental business. Currently, reliable data on the aggregate regional demand for a hazardous waste landfill are in the early stages of development. The total amount of hazardous and toxic waste produced in region unavailable because many businesses producing such waste have not yet disclosed its existence.

As governmental regulations mandating compliance with environmental standards are more uniformly enforced, there will be increasing and predictable demand for the facility.

#### **C5e. Physical/Engineering Factors**

Essentially, the project consists of two principal elements:

1. A secure landfill for hazardous and toxic substances, and
2. A plant to blend or otherwise treat combustible substances.

The landfill will be engineered with a clay base, a double synthetic liner and two leachate systems. The leachate systems will be designed to detect and recover any effluent which may penetrate the liner system.

The project is to be constructed in three phases:

1. The first phase will consist of a hazardous waste landfill, a stabilization plant, and a blending facility for waste-derived fuels. This phase will also include an office building, a laboratory, waste storage facilities, and staff facilities.

The initial capacity of the facility is to be 40,000 metric tonnes per year.

The fuel blending facility will derive synthetic fuel from organic waste. The synthetic fuel produced in the plant will be used in the adjacent P.T. Semen Cilinong cement kiln.

2. Physical and chemical stabilization facilities, and waste water treatment facilities.
3. A hazardous/chemical waste incinerator.

At completion, the facility - including the landfill and related transport activities, the stabilization plant and associated laboratory functions - will employ an estimated 150 to 175 persons. The agreement between the private entities and the GOI provides that the joint venture will bring new technologies to Indonesia, and will carry out extensive staff training in new technologies and in industrial waste handling methods.

#### **C5f. Financial Structure**

Essentially, the facility is a private business investment which complies with GOI environmental standards, and is indirectly regulated by the GOI due to its status as the first project of its kind in Indonesia. The kabupaten Bogor has no direct investment in the venture.

The development of the facility is totally privately financed, with P.T. Prasadha Pamunah Limbah Industri (PPLI), the joint venture limited liability company for the

project, providing much of the capital for the project as a direct equity contribution.

#### **D. Power**

There are three case studies in this section of the report: (D1.) Cikarang Listrindo Power Plant, Bekasi, West Java; (D2.) Paiton One Power Project, East Java; and (D3.) Batangas Power Plant, Pinamucan, Batangas, Philippines. All three projects are public-private partnerships.

Public electric power in Indonesia is the responsibility of the *Perusahaan Umum Listrik Negara* (PLN), the central government owned national power authority. PLN was established in 1972 as a public corporation; it is regulated by the Directorate General of Electricity and New Energy in the Ministry of Mines and Energy.

The existing installed capacity of PLN is approximately 11,000 MW; as a comparison, the total estimated installed capacity of the private power plants in Indonesia is approximately 8,000 MW. While much of the private capacity consists of diesel generators which are used only during working hours, there is essentially no cogeneration.

Private sector involvement in the provision of electric power has been permitted for many years, and consistently encouraged since the declines in oil prices which occurred in the mid 1980's. Kepres 15 of 1985 is often cited as the first explicit law allowing private participation in power. In April 1990, President Soeharto orally invited private investment in power as part of a series of public remarks, but did not issue a formal written document.

Kepres 37 of 1992, which provides the formal legal basis for private sector participation in power, was issued in April 1992. In early 1993 the Ministry of Mines and Energy, and the Ministry of Finance, released a series of regulations with some of the specifics of private participation.

The stated policies of the GOI on private sector participation in the production of electric power favor the Build/Own/Operate (BOO) approach, whereby private entities would develop private power plants and become, in effect, independent power producers (IPP's).

#### **D1. Cikarang Listrindo Power Plant, Bekasi, West Java**

##### **D1a. Summary**

The Cikarang Listrindo power project is a gas fired 76 MW turbine facility developed as a Build/Own/Operate (BOO) project which became operational in November 1993. It has an exclusive right to distribute electricity to all the industrial facilities within five industrial estates in Bekasi for 10 years.

### **D1b. Background and History to Date**

The Cikarang Listrindo power project was reportedly initially conceived in 1989, when the principals in the proposed 510 hectare Cikarang Industrial Park were in the process of planning for their development as part of a new 5,000 hectare industrial area in Bekasi.

The Cikarang Industrial Park needed a number of basic infrastructure services, including a supply of electrical power, to attract users to the development. And the entire proposed industrial area, which included several planned industrial estates, was in the same situation: without infrastructure services, industrial users could not locate in the area. As a result, the developers of the Cikarang Industrial Park reportedly decided to study how they could undertake the construction of an independent power project for the area.

The first concept proposed and evaluated was for a large scale 1,200 MW coal fired facility. The application letter of August 1, 1990 to the GOI for permission to construct the facility was for a 300 MW first phase of the project. However, this approach proved to be infeasible due to the site's location away from the coast, and the shallow depth of the water in nearby coastal areas.

The GOI provided approval of the project as proposed on December 5, 1990. Based on this approval, the developers had the project analyzed; the final detailed market and financial feasibility studies were prepared in 1992. When the planning was completed in 1992, the GOI granted P.T. Cikarang Listrindo the exclusive right to supply electricity to industrial plants in five industrial estates in Bekasi, to the east of Jakarta, making P.T. Cikarang Listrindo the first independent power producer (IPP) in Indonesia to be permitted by PLN to sell power directly to end users.

The five industrial estates to be supplied by P.T. Cikarang Listrindo are Cikarang Industrial Estate (Jababeka), Hyundai Inti Development (HID), East Jakarta Industrial Park (EJIP), Megapolis Manunngal 2100/Bekasi Fajar Industrial Estate (MM2100), and Lippo City.

The project became operational in November 1993. At that time, the output of the plant was sold directly to PLN because there were not yet any tenants in the industrial estate. The project is currently in its early operational stages; negotiating with customers and selling power which it does not supply to industrial users to PLN.

### **D1c. Legal Structure**

P.T. Cikarang Listrindo is a Build/Own/Operate (BOO) project, incorporated as a limited liability company and owned by a group of investors. It has an exclusive right to distribute electricity to all the industrial facilities within the five industrial estates for 10 years.

Although it is regulated by PLN and sells a portion of its power output to PLN, it is essentially a private enterprise.



#### **D1d. Market Considerations**

P.T. Cikarang Listrindo has the exclusive right to sell power in a rapidly developing industrial area. At its opening in November 1993, Cikarang Listrindo was reported to be supplying a total of 25 MVA of power to 34 industrial users in its area of operations.

The power produced by Cikarang Listrindo which was not sold to industrial users was being sold to PLN.

The management of the facility also plans to supply electricity to retail uses, hotels, and residential developments outside the industrial area. Reportedly, the rates for these customers will be the same as those of PLN.

#### **D1e. Physical/Engineering Factors**

The plant is a modern, well designed facility located on a 15 hectare site in the P.T. Cikarang Listrindo industrial estate in Bekasi. It supplies industrial users which typically operate 10 to 12 hours per day.

The initial phase of the facility consists of two 38 MW gas fired turbines; the turbines use natural gas. The facility was designed with the option to add a combined cycle operation in a later phase.

The next phase of construction, to include the expansion of the plant by the addition of four 38 MW generating units, will reportedly increase its capacity to 328 MW. The expansion program is scheduled begin in 1994, and be completed and operational within two years.

The expansion will be planned for a dual firing system, permitting the use of natural gas and coal in the facility.

The Cikarang Listrindo power plant is constructed with the standard system utilized by PLN, and is interconnected with PLN's 150 kilovolt ampere (KVA) transmission network. Cikarang Listrindo will provide a maximum of 30,000 KVA to each industrial user.

#### **D1f. Financial Structure**

The project is privately financed by the investment group which owns it. It is reportedly funded by Indonesian sources. According to Cikarang Listrindo, the total investment in power plant approximately US\$84 million. The plant is expected to recover its investment within eight years.

The project sells power to industrial users at rates approximately 20 percent higher than those of PLN. It also charge customers a monthly fee for each KVA of power used.

PLN buys power from Cikarang Listrindo based on a blend of peak and offpeak rates, using a spot price adjusted on a monthly basis.

## **D2. Paiton One Power Project, East Java**

### **D2a. Summary**

The agreements for this US\$2.5 billion project were signed in mid February 1994. The project, as proposed, will consist of two coal fired power plants with a capacity of 1,230 MW, which will sell power to PLN under the terms of a 30 year power purchase agreement.

### **D2b. Background and History to Date**

The Paiton power project, as proposed, will be the largest private power plant in Indonesia. It is proposed to add 1,230 MW to the existing installed capacity of approximately 11,000 MW on Indonesia's power grid. The project is planned as part of a 4,000 MW facility which has been planned on the site by PLN since 1979.

In June 1990, the GOI selected Units 7 and 8 of the Paiton project for private investment. The initial Terms of Reference (TOR) were issued to two prospective bidders on December 29, 1990, with proposals due by May 31, 1991. After a series of withdrawals and reinstatements by Bimantara, two consortia were formed: BNIE and BMMG.

The BMMG consortium, which is sponsoring the project, submitted its proposal to PLN on September 18, 1991. Substantive negotiations began in mid 1992 on units 5 and 6 when the competing consortium managed by Bimantara, which was originally selected for the project, again withdrew.

After several formal negotiation sessions, the parties to the transaction executed a series of agreements in mid February 1994. The principal issues during the negotiations were the selling price of the electricity, financial guarantees, and several currency-related items.

### **D2c. Legal Structure**

P.T. Paiton Energy, a limited liability company which was formed to sponsor the project, is the legal owner of the power plant. The company is owned 32.5 percent by the Mission Energy subsidiary MEC International BV of the Netherlands, 32.5 percent by Mitsui & Co., 20 percent by the General Electric Power Funding Corp. subsidiary of General Electric Company, and 15 percent by P.T. Batu Hitam Perkasa.

The output of the facility to be sold to PLN under a 30 year power purchase agreement. The selling price of the electricity is to be US\$.0856 for the first six years of operation, US\$ .0841 for the next six years, US\$.0554 for the remaining 18 years of the term.

## **D2d. Market Considerations**

The only customer for the output of the plant is PLN: although the plant will be a private investment, its market is the GOI. Consequently, the primary market considerations involved in the planning of the project and the negotiations of the transaction itself were the guarantees which could be provided by the GOI that it would purchase the power from the plant.

## **D2e. Physical/Engineering Factors**

The facility to be constructed will consist of two 615 MW coal-fired units located at the Paiton power station in East Java. It is estimated preliminarily that it will require up to 44 months to complete construction. The current official scheduled completion date is mid to late 1998.

## **D2f. Financial Structure**

The total project cost is preliminarily estimated to be in the range of US\$ 2.5 billion. Of this amount, it is anticipated that approximately US\$1.8 billion will be financed, and some US\$700 million will be provided through the consortium as equity capital.

The Export-Import Bank of the United States and the ExIm Bank of Japan will extend credits of up to \$1.4 billion, with an additional US\$400 million from commercial banks and multilateral lending institutions.

The selling price of the electricity to be produced by the plant is the major financial issue in the transaction, making the pricing agreement the key financial document in the contract.

## **D3. Batangas Power Plant, Pinamucan, Batangas, Philippines**

### **D3a. Summary**

The Batangas Power Project is a 105MW power plant that was contracted and built under the Fast Track, Build/Own/Transfer (BOT) concept promulgated by the National Power Corporation (NPC) in response to the power shortage which has affected the Philippines since 1991/92. The plant has been in commercial operation since July 1993.

### **D3b. Background and History to Date**

The National Power Corporation (NPC) is the major supplier of electrical power in the Philippines. Since the late 1980's, the Philippines has suffered from a severe shortage of power. To address the power shortage, the NPC has been involved in a series of programs designed to promote private investment in power projects.

The first major piece of legislation to provide for private investment in power projects was Executive Order 215 of 1987, which permitted private investment in four broad categories of power projects. In 1990, Republic Act No. 6957 was passed, allowing Build/Own/Transfer (BOT) projects and providing incentives, particularly for foreign investment. The Electric Power Crisis Act was passed in 1993: this legislation permitted the President to negotiate contracts for power projects, and identified a series of fast track private power projects.

The NPC contract for the Batangas Power Project was awarded in June 29, 1992 as a fast track project following a review by NPC of several competing proposals. The model for the contract, its terms and risk sharing components, was derived from work underwritten by USAID and first implemented in 1991 with Hopewell's original BOT contract at Navotas.

Under the fast track concept, Enron Development Corp. (Enron) developed a project which was completed in less than a year from the conclusion of the power purchase contract (BOT contract) with NPC. Enron and its partners guaranteed the financing for the project in order not to delay the short timetable required under the contract.

The Enron BOT contract committed the Independent Power Producer (IPP) to build and operate the plant for 10 years with a two-tiered rate structure: (1) a fixed monthly capacity payment designed to provide coverage of the cost of capital and a reasonable return of equity, and (2) a variable fee payment to cover operating expenses which is based on actual output and agreed escalators.

Penalties for underperformance on power production or fuel consumption are provided for in the contract, along with bonuses in the event of better than expected performance.

In addition to the NPC BOT contract (which includes the scope, the power purchase, and end-of-term turnover provisions), the other significant agreements were the government guarantee, the turnkey construction contract, the operating and maintenance contract, the fuel supply and management agreement, the long term lease on the land, and the financing agreements. The government also provided a six year tax holiday under pro-foreign investment legislation.

The turnkey contractor was a affiliate of Enron - Enron Power Corp - which subcontracted out work to both international and Philippine contractors. The turnkey contract provided for significant penalties for late completion. The fuel supply is procured by NPC in joint coordination with the plant operator.

The plant operation and maintenance is under contract to an Enron affiliate, Enron Subic Power Corp., which also provides the administrative management services. The operating contract also provides for penalties or bonuses tied to performance.

The plant has been in commercial operation since July 1993, and permanent financing is scheduled to be in place by mid-March 1994.

### **D3c. Legal Structure**

A corporation, Batangas Power Corporation, was formed and acceded to the rights and obligations of Enron Development under the BOT contract.

Enron sold a 40 percent interest in the project to the New Saga Power Corporation, which is composed of Philippines and other regional investors. Another 10 percent will belong to the lenders, upon financial close. Enron Power Philippines Corp. will retain the remaining 50 percent. The board has 10 directors, with one for every 10 percent of ownership.

### **D3d. Market Considerations**

The Batangas Power Project, like the Hopewell Navotas Project, was constructed to provide a rapid response to the power crisis in the Philippines. In the past few years, there have been several additional fast track private power projects developed in the Philippines.

The developers of these projects have been attracted by the rapid growth demand for electric power in the Philippines, and the tax incentives produced by the government programs. The involvement of independent power producers has proven to be an important market factor in addressing the Philippines power shortage, because the new projects have produced substantial expansions to the power supply.

### **D3e. Physical/Engineering Factors**

The plant was built near the shoreline, with direct access to an unloading pier through which heavy fuel oil is delivered. The site neighbors a chemical plant, and is located on a hill, which required it to be constructed in several stairstep tiers.

The main power block and computerized control center for the facility is an enclosed steel building.

Two stepup transformers tie into the NPC grid through an onsite deadend structure into a newly built (by NPC) 230 kV transmission line.

The power units consist of 8 Wartsila diesel engines which are powered by heavy fuel oil. The configuration consists of two mirror image sets of three 18v46s and one 16v46, with each engine fitted with a turbo charger. Air cooling was used because of a local scarcity of fresh water. The heavy fuel oil is pretreated by heating (using heat recovery steam boilers from the exhaust stacks), by mixing with water to remove salts, and by multistage centrifuging.

All appropriate local and international environmental standards were designed into the facility.

### **D3f. Financial Structure**

The company's shareholders provided the construction financing. The permanent debt will provide just under 75 percent of the total capitalization of the project. The lenders include ADB, OPIC, and a consortium of commercial banks led by Citibank.

The lenders have a mortgage on all property and contracts, and have received confirmation letters from all the branches of the Philippines government which interface with the project.

OPIC's share of the debt will be floated on the capital markets with a fixed yield tied to US Treasuries. The remainder of the debt will be conventional loans with 10 year maturity. All debt is non-recourse to the owners.

### **E. Highways**

This section of the report contains one case study: (E1.) Jasa Marga Process. The case study is formatted in a manner similar to the standard public-private partnership (PPP) transaction.

The case study is included in this report to provide a brief, focused overview of the toll road financing system in Indonesia. The toll road system has been financed by a combination of direct public equity capital, publicly sponsored bond issues, and private investment.

The planning, development, and regulation of the toll road system in Indonesia is the responsibility of the Directorate General Bina Marga in the Ministry of Public Works. The ongoing operation and maintenance of the system is administered by P.T. Jasa Marga, a government owned limited liability corporation established in 1980. Jasa Marga collects the revenues generated by the toll road system, and utilizes them for the costs of operations and maintenance.

#### **E1. Jasa Marga Process**

##### **E1a. Summary**

The ongoing operation and maintenance of the toll road system in Indonesia is administered by P.T. Jasa Marga, a government owned limited liability corporation established in 1980. P.T. Jasa Marga financing for the system has come in large part from revenue bonds issued by Jasa Marga since 1983. The primary purchasers of the bonds have been TASPEN, a public pension fund, and ASTEK, a public employee insurance compensation fund. Both entities are owned and managed by the Ministry of Finance.

## E1b. Background and History to Date

The existing toll road system in Indonesia contains approximately 455 kilometers built in Java since 1978. The system has grown in continuous increments, with the focus on providing urban and some segments of interurban roads as part of a complete network. Consequently, there is as yet no single completed facility connecting the major regions of Java.

Current plans for the system are ambitious: the Trans-Java toll road network, providing a direct highway connection between Merak in West Java and Pasuruan in East Java is scheduled to be completed by the end of Repelita VI, in March 1999.

The Directorate General Bina Marga in the Ministry of Public Works is responsibility for the planning, development, and regulation of the toll road system in Indonesia. P.T. Jasa Marga, a government owned limited liability corporation established in 1980 administers the ongoing operation and maintenance of the system.

The development of the system initially focused on the completion of projects, with legal and institutional structures evolving as the projects were built. The first toll road completed was the Jagorawi road, connecting Jakarta with Bogor. This facility was opened in 1978. In 1980, as noted above, P.T. Jasa Marga was created.

In 1983, P.T. Jasa Marga issued its first revenue bonds for toll road construction based in part on revenues from the Jagorawi road, which were used in the construction of the Prof. Dr. Ir. Sedyatmo toll road to the Jakarta airport: this facility was opened in 1985.

In 1986, private sector investment in toll roads was permitted, under relatively stringent regulations, with the tariff set by Presidential decree. Kepres Number 8 of 1990 provided a formal structure for private investment in toll roads, modifying some of the administrative provisions of the process to facilitate land acquisition and relocation, among other matters.

The Ministry of Public Works is currently working with private sector companies to develop 19 toll road segments containing approximately 649 kilometers at a cost of approximately Rupiah 4.7 trillion. Of this total, approximately 40 kilometers have been completed.

P.T. Jasa Marga will soon build a 140 kilometer toll road segment between Cikampek and Cirebon at an estimated investment of Rupiah 1.16 trillion. The road is to be operational by 1995.

P.T. Jasa Marga has invited private firms to invest in five planned additions to the toll road system totalling approximately 240 kilometers:

- Semarang Section C (12 kilometers)
- Semarang/Bawen (22 kilometers)
- Yogyakarta/Solo (60 kilometers)
- Cirebon/Tegal (69 kilometers)
- Tegal/Batang (69 kilometers)

These projects are part of a plan to add approximately 928 kilometers of toll roads to the existing system in Java. The additions would include five long segments:

- Jakarta/Merak (115 kilometers)
- Jakarta/Cikampek (71 kilometers)
- Cikampek/Cirebon (142 kilometers)
- Cirebon/Semarang (240 kilometers)
- Semarang/Surabaya (260 kilometers)

The private investment program is continuing: P.T. Jasa Marga announced recently that it will invite private firms to participate in seven toll roads with a total length of approximately 400 kilometers.

#### **E1c. Legal Structure**

P.T. Jasa Marga is a government owned limited liability company monitored and regulated by the Ministry of Public Works. It is one of 19 similar government owned companies which the Ministry of Public Works oversees.

#### **E1d. Market Considerations**

The pricing of the toll road system is set by Presidential decree: the tolls are levied by vehicle type to provide for social and public policy objectives, and may be revised periodically. There is no competition - other than travel by nontoll roads - to the toll road system. Consequently, the system functions as its own market.

#### **E1e. Physical/Engineering Factors**

The toll road system is being built, as is indicated previously, in multiple segments, with an emphasis on complex urban facilities - many of which involve bridges and similar undertakings. Generally, the system is being developed as a high capacity road network, to accommodate large amounts of intraurban and interurban travel.

#### **E1f. Financial Structure**

The existing toll road system was built at a total cost of approximately Rupiah 1.56 trillion. Of this total, approximately 46 percent was public funds, 28 percent from PT Jasa Marga, and 26 percent from the private sector.



The P.T. Jasa Marga financing for the system has come in large part from revenue bonds issued by Jasa Marga since 1983. The primary purchasers of the bonds have been TASPEN, a public pension fund, and ASTEK, a public employee insurance compensation fund. Both entities are owned and managed by the Ministry of Finance.

Based on information from P.T. Jasa Marga, the current average cost per kilometer for toll roads in urban areas is in the range of Rupiah 8 billion to Rupiah 10 billion.

---

### SECTION III

#### LESSONS LEARNED

---

This section of the report summarizes the key lessons learned from several private sector participation and public-private partnership transactions completed to date, and recommends specific actions to the GOI for use in future private sector participation and public-private partnership projects. The recommendations in the report are focused on specific technical actions which are achievable in the near term.

#### A. Private Sector Participation (PSP)

##### A1. Conclusions

There are four Private Sector Participation (PSP) transactions assessed as case studies in this report:

- In the water sector - (A1) PDAM Billing and Collection System, Surabaya; and (A2) PDAM Service Contracts, Medan.
- In the solid waste sector - (C1) Dinas Kebersihan Service Contracts, Surabaya; and (C2) Dinas Kebersihan Contracting Program, Jakarta.

Private sector participation (PSP) projects are non-capital intensive infrastructure transactions in which a private entity provides a service under a contractual agreement with a governmental entity. The case studies this report assess both categories of private sector participation (PSP) transactions:

- **Service Contracts:** In these transactions a private entity enters into a contract with a government agency to provide a specific, routine service such as repairs to pipes, scheduled maintenance of vehicles, collection of solid waste, meter reading, or engineering testing.

Typically, a service contract is short term, involves no significant private capital investment, is focused on a well-defined task (such as repairs to pipes, scheduled maintenance of vehicles, collection of solid waste, street cleaning, maintenance of drains, or engineering testing), is closely supervised and controlled by a government agency, and is limited to routine tasks.

A service contract may be utilized to procure specific services at lower cost, or with more flexibility, or for a shorter term than is possible through a government agency.

Three of the case studies are services contracts: in the water sector - (A1) PDAM Billing and Collection System, Surabaya; in the solid waste sector - (C1) Dinas Kebersihan Service Contracts, Surabaya; and (C2)

Dinas Kebersihan Contracting Program, Jakarta.

- Operating Contracts: A private entity enters into a contract with a government agency to provide a specialized and technically difficult service such as operating a water supply system, or providing management of a major organizational function such as bill collection.

An operating contract is typically medium term (say three to five years), may involve a significant amount of private capital investment (in the form of machinery and equipment, or staff training, or financing of contract obligations), addresses a wide functional agenda, transfers significant responsibility to the private entity, and is controlled by general oversight based on management standards.

Government agencies enter into operating contracts to acquire additional technical skills, management expertise, higher quality service, staff training, and flexibility at low cost.

One of the case studies is an operating contract: in the water sector - (A2) PDAM Service Contracts, Medan.

Overall, the private sector participation case studies illustrate that for the past several years, municipal governments in Indonesia have been increasingly utilizing private sector firms to provide many routine services in basic urban infrastructure programs. The primary focuses of this contracting activity which are relevant to the PURSE Project sectors have been on water supply and solid waste management.

Private sector participation transactions, especially those involving the daily provision of price-sensitive routine municipal services such as water supplies and solid waste management, are driven primarily by administrative and management considerations.

In the water sector, many PDAMs in the larger cities in Indonesia now contract with private firms for a portion of their scheduled replacement activities, routine repairs, maintenance, meter reading, and billing and collection services. This is a trend which is spreading rapidly.

Similarly, in the municipal solid waste management sector, many of the Dinas Kebersihans in the larger cities in Indonesia contract for a portion of the street cleaning, maintenance of drains, solid waste collection, transfer and disposal of solid waste, routine repairs, maintenance, and billing and collection services with private firms, and - more typically - with NGO's which have a long history of involvement in municipal solid waste.

As the case studies demonstrate, the larger cities which are contracting for water and solid waste services are generally utilizing smaller local firms for well-defined routine tasks, often in portions of the administrative areas of the municipalities. The contractors typically provide low cost services, using labor intensive work practices.

The legal and regulatory framework for the contracts is typically well delineated, with enabling decrees and legal precedents stated in some detail. The amount of contract documentation is appropriate, with the quality and completeness of certain documents - such as the PDAM Tirtanadi billing and collections contract - exceptional.

Institutionally and administratively, the amount of document processing involved in a service contract is generally substantial, particularly in the context of the short terms. The bid and award process is often based on negotiated awards, following established working relationships. From a financial perspective, the contracts generally provide for detailed payment schedules and adequate financial guarantees - the PDAM Surabaya incentive payment and bank guarantee provisions are outstanding in this regard.

## **A2. Recommendations**

### **A2a. Legal and Regulatory Framework**

The terms of contracts should be reviewed, and lengthened where possible: the current typical contract terms - in the range of three months to one year - are too short to be financeable, particularly for contracts involving capital equipment.

### **A2b. Documentation**

More detailed, standardized contract documents with additional focus on operational issues such as performance guarantees and less focus on administrative issues, should be prepared. The contract developed by PDAM Tirtanadi for billing and collection services is an example in this regard.

### **A2c. Institutional Factors/Relationships**

Contract administration and operational management should be stressed by municipal service agencies, along with the gradual adoption of analytical management practices.

### **A2d. Bid Invitation, Evaluation and Selection Process**

There should be increased focus on bidding rather than negotiated awards, with the time to award decreased, and scheduling of the bid and award cycle coordinated with municipal fiscal years.

### **A2e. Financial Issues**

Incentive based payment schedules should be developed for appropriate services, to focus on quality of services.

Financial guarantees, especially bank guarantees, could be used to enforce sanctions: the PDAM Surabaya billing and collection contracts are an example.

## **B. Public Private Partnerships (PPP)**

### **B1. Conclusions**

There are eleven Public Private Partnership (PPP) projects considered as case studies in this report:

- In the water sector - (A3) Nusa Dua Water Supply System, Bali; and (A4) Umbulan Spring Water Supply Project, Pasuruan, East Java.
- In the wastewater sector - (B1) ESI Hybractor, Mojokerto, East Java.
- In the solid waste sector - (C3) Dinas Kebersihan Waste Incineration Plant, Surabaya; (C4) P.T. Wira Gulfindo Sarana Transfer Station, Jakarta; and (C5) Cibinong Hazardous Landfill, West Java.
- In the power sector - (D1) Cikarang Listrindo Power Plant, Bekasi, West Java; (D2) Paiton One Power Project, East Java; (D3) Batangas Power Plant, Pinamucan, Batangas, Philippines.
- In the highways sector - (E1) Jasa Marga Process.

Public private partnerships (PPP) are a complex form of private involvement, whereby a private entity participates in the development, financing and construction with the authorization and support of a governmental agency. Because they generally include the investment of significant private capital, public private partnerships typically result in the government and private business firms becoming partners. This report defines two forms of private sector participation (PSP):

- A Build/Operate/Leasehold Transfer (BOT) is a contract whereby a private entity is responsible for the financing, construction and operation of an infrastructure facility during a leasehold period. During the leasehold period, the private entity owns the facility. At the end of the lease period, ownership of the facility is transferred to the government agency.

The BOT approach is used as a means of substituting private investment capital for public funds in the financing of infrastructure. The provision for the transfer of the facility to public ownership at the end of the leasehold period permits the government to control the operation of the facility, and to eventually add the project to its asset base.

There are six BOTs in the case studies in this report: in the water sector - (A3) Nusa Dua Water Supply System, Bali; and (A4) Umbulan Spring Water Supply Project, Pasuruan, East Java; in the wastewater sector - (B1) ESI Hybractor, Mojokerto, East Java; in the solid waste sector - (C3) Dinas Kebersihan Waste Incineration Plant, Surabaya; in the power sector - (D2) Paiton One Power Project, East Java; (D3) Batangas Power Plant, Pinamucan, Batangas, Philippines.

- A Build/Own/Operate (BOO) is a contract whereby a private entity is responsible for the financing, construction and operation of an infrastructure facility. In addition, the private entity owns the facility in perpetuity.

The BOO approach is used to permit complete privatization of selected infrastructure facilities in exchange for private acceptance of a wide range of risk, based on public policy considerations. The provision for the continuation of private ownership, typically in a regulated environment, is designed to assure standards of construction and maintenance.

There are three BOOs included in the case studies in this report: in the solid waste sector - (C4) P.T. Wira Gulfindo Sarana Transfer Station, Jakarta; and (C5) Cibinong Hazardous Landfill, West Java; in the power sector - (D1) Cikarang Listrindo Power Plant, Bekasi, West Java; in the highways sector - (E1) Jasa Marga Process.

Overall, the public-private participation case studies illustrate that for the past several years, Indonesia has been involved in a broad national agenda of private sector investments in urban infrastructure, including major programs in national roads/highways/transport, and power.

Public-private participation transactions tend to be complex: essentially, they are driven primarily by financial issues and financing arrangements. The key to structuring public-private participation transactions is generally to find a balance between the social equity agenda of the government (i.e., affordable tariffs) and the risk reduction requirements of the private investors and their lenders (i.e., take or pay provisions, financial guarantees, force majeure provisions).

The power sector is often the first public activity to attract large scale private investment: many of the key financial issues involved in the Paiton power plant transaction are the same as those which will be central to public-private participation projects in the water, wastewater, and solid waste sectors - especially for those projects which include offshore financing.

For municipal infrastructure services in the PURSE Project sectors, the primary focuses have been on developing large BOT projects in water supply and, recently, on permitting BOOs in solid waste management.

To date, there has only been one large scale BOT completed in local water supply. This is the Nusa Dua Water Supply System, in Bali, where a private consortium has developed a water extraction and distribution system for hotels and residential users. The system is now completed and operational. The joint venture, in the legal form of a limited liability company which was formed to manage the development of facilities and all ongoing operations to provide water supplies in the concession area, was granted a concession for a period of twenty years. The joint venture entity is owned 55 percent by three private partners, and 45 percent by the local water authority, with percent ownership based pro rata on the value of equity contributed to the venture.

Several other major water supply projects are in active planning or negotiations. Most of these are to be financed as BOTs or other types of public-private undertakings.

These large BOT water projects have proven to be difficult to negotiate. Among the major issues which the GOI has encountered are:

- (1) How to gradually raise water tariffs to levels which permit enough income to cover development costs without causing social problems;
- (2) How to control project costs, and limit the amount of private capital needed, by having the GOI fund selected elements of the construction;
- (3) How to phase projects based on both demand and project economics, so that the initial phases are feasible from an engineering perspective and financeable;
- (4) How to encourage the structuring of low cost private financing without providing general government guarantees.

In the solid waste sector, there are several public-private participation transactions in varying stages of completion.

There is one completed BOO project in the solid waste sector: the Cibinong Chemical Waste Facility, West Java is a central industrial waste treatment facility, which is designed to treat and dispose of hazardous and toxic chemical wastes produced by industrial firms, commercial activity, medical facilities, and other sources throughout Java. It is the first of its kind in Indonesia. The first phase of the facility, which includes a landfill and a stabilization plant for more volatile substances, is recently completed and in initial operations. The Cibinong chemical waste facility project was proposed in response to the need for a central facility to treat and dispose of hazardous or toxic substances which are produced as industrial and commercial byproducts throughout Java.

The PT Wira Gulfindo transfer station, financed as a BOO, is still in the demonstration phase, with no guarantees that it will become fully operational.

The incinerator in Surabaya, based on technology manufactured by Cadoux of France, and financed by the BOT approach, is essentially operating as a public facility.

## **B2. Recommendations**

### **B2a. Legal and Regulatory Framework**

A BOT/BOO law, with detailed implementing regulations, should be prepared for large projects in selected sectors.

#### **B2b. Documentation**

A standard package of contract documents should be prepared for large BOO/BOT projects in the water sector, and made available to potential private investors.

#### **B2c. Institutional Factors/Relationships**

A standard GOI approach to ownership issues should be delineated for large water projects, to assist in the bidding and structuring of projects involving complete water systems, including distribution facilities.

#### **B2d. Project Planning and Delineation Process**

A standardized project development cycle, including required technical information, particularly prefeasibility analyses, should be defined and made available to potential private investors.

#### **B2e. Bid Invitation, Evaluation and Selection Process**

A flexible bid process should be designed for larger water and solid waste projects.

#### **B2f. Financial Issues**

This is an important area of focus: GOI policies on risk allocation, particularly as related to financial guarantees for large projects, should be defined and distributed as part of a BOO/BOT law.



---

## ANNEXES

---

- A. PDAM Surabaya Billing and Collection System  
*Surat Perjanjian Kerja*, dated December 31, 1992 - standard service contract for billing and collection contractors.
- B. PDAM Surabaya Billing and Collection System  
*Garansi Bank*, dated December 30, 1992 - standard form of bank guarantee for billing and collection contractors.
- C. PDAM Surabaya Billing and Collection System  
*Lampiran Surat Keputusan Direksi PDAM Kotamadya Dati II Surabaya* Number KPTS/30/411.61/85, dated April 23, 1985 - attachment letter to PDAM decree delineating the graduated payment scale for contractors.
- D. PDAM Tirtanadi Medan Service Contracts  
*Surat Perjanjian Kerja Sama Tentang Penagihan Kwitansi Air*, dated August 25, 1993 - contract for billing and collection services.
- E. Nusa Dua Water Supply System  
*Kesepakatan Bersama*, dated September 24, 1990 - memorandum of understanding (MOU).  
  
*Kesepakatan Membentuk Perusahaan Patungan*, dated March 5, 1991 - agreement to form joint venture.
- F. Dinas Kebersihan Surabaya Service Contracts  
*Surat Perintah Kerja*, dated April 30, 1993 - work order for solid waste transfer services.

**ANNEX A**

---

**PDAM SURABAYA BILLING AND COLLECTION SYSTEM**

***Surat Perjanjian Kerja*, dated December 31, 1992 - standard service contract  
for billing and collection contractors.**

KONTAK KERJA

TAHUN 1993

65



PEMERINTAH KOTAMADYA DAERAH TINGKAT II SURABAYA  
**PERUSAHAAN DAERAH AIR MINUM**  
Jl. Mayjen Prof. Dr. Moestopo no. 2 Telp. 031 - 519373 - 519392 - 519676 Fax. 520100  
SURABAYA

**SURAT PERJANJIAN KERJA**

**PENAGIHAN REKENING AIR MINUM**

**ANTARA**

**PERUSAHAAN DAERAH AIR MINUM KOTAMADYA DATI II SURABAYA DENGAN  
KONTRAKTOR PENAGIHAN REKENING AIR MINUM**

N o m o r : BAD/ /402.7.01/92  
Tanggal : 31 Desember 1992

Pada hari ini K a m i s , tanggal Tiga puluh satu bulan Desember tahun seribu sembilan ratus sembilan puluh dua, yang bertanda tangan dibawah ini :

1. Ir. H O E S O D O : Selaku Plh. Direktur Utama, bertindak untuk dan atas nama Direksi Perusahaan Daerah Air Minum berdasarkan SP Walikotamadya Nomor 065/1678/402.2.01/1992 Tanggal 22 Juni 1992 yang selanjutnya disebut PIHAK PERTAMA.

2.

Mengingat : 1. Bahwa untuk memperlancar pekerjaan dalam hal Penagihan Rekening Air Minum, PIHAK PERTAMA menunjuk PIHAK KEDUA untuk melaksanakan Penagihan Rekening Air Minum pada Pelanggan Air Minum.

2. Bahwa PIHAK KEDUA dianggap mampu dan bersedia untuk ditunjuk sebagai Kontraktor Penagihan Rekening Air dari PIHAK PERTAMA.

Dengan ini telah sepakat untuk mengadakan Perjanjian Kerja Penagihan Rekening Air Minum, dengan ketentuan yang diatur dalam pasal - pasal tersebut dibawah ini :

Pasal 1  
Ketentuan Umum

PIHAK PERTAMA Menunjuk PIHAK KEDUA dan PIHAK KEDUA bersedia menerima penunjukkan dari PIHAK PERTAMA sebagai Kontraktor Penagihan Rekening Air Minum Perusahaan Daerah Air Minum Kotamadya Dati II Surabaya, kepada para pemakai/pelanggan air minum Perusahaan Daerah Air Minum Kotamadya Dati II Surabaya.

Pasal 2  
Jangka Waktu Pelaksanaan

PIHAK KEDUA ditunjuk sebagai Kontraktor Penagihan Rekening Pemakaian Air dalam jangka waktu :  
Mulai tanggal : 1 Januari 1993  
Sampai dengan tanggal : 31 Desember 1993

Dengan catatan :

- a. Dengan berlakunya Surat Perjanjian Kerja ini, maka Surat Perjanjian Kerja No. BAD/57A/402.7.01/91 tanggal 31 Desember 1991 dinyatakan tidak berlaku lagi.
- b. Jangka waktu pelaksanaan dalam pasal ini sesuai dengan Surat Keputusan Direksi Perusahaan Daerah Air Minum Kotamadya Dati II Surabaya Nomor 157 Tahun 1992 Tanggal 16 Desember 1992.

Pasal 3  
Kewajiban

PIHAK KEDUA berkewajiban memenuhi dan bersedia menerima ketentuan - ketentuan yang tertera sebagai berikut :

- a. Surat Keputusan Direksi Perusahaan Daerah Air Minum Kotamadya Dati II Surabaya No. Kpts/29/411.61/85 tanggal 23 April 1985, perihal Pedoman Pelaksanaan Penagihan Rekening Air.
- b. Surat Keputusan Direksi Perusahaan Daerah Air Minum Kotamadya Dati II Surabaya No. Kpts/30/411.61/1985 tanggal 23 April 1985, perihal Premi Penagihan Rekening Air.
- c. Tidak akan melimpahkan penagihan rekening air ini kepada pihak ketiga atau dalam bentuk apapun.
- d. Apabila mengalami pailit/mengundurkan diri segera mengajukan permohonan berhenti sebagai Kontraktor Penagihan dan menyerahkan kembali rekening airnya dan PHAK PERTAMA menyerahkan kembali Bank Garansinya kepada PIHAK KEDUA.
- e. Apabila dipandang perlu sewaktu-waktu secara sepihak PIHAK PERTAMA dapat membatalkan perjanjian kerja dengan PIHAK KEDUA untuk selama lamanya dan PIHAK KEDUA sanggup/bersedia serta tidak akan menuntut berupa apapun kepada PIHAK PERTAMA.

Pasal 4  
Kewajiban lain

PIHAK KEDUA bersedia untuk mematuhi/memenuhi ketentuan - ketentuan lain yang disampaikan oleh PIHAK PERTAMA setelah Surat Perjanjian ini ditanda tangani.

Pasal 5  
Sanksi

Agar terjamin bahwa PIHAK KEDUA akan memenuhi syarat - syarat Perjanjian Kerja dan Peraturan - peraturan /Pedoman Penagihan serta untuk menjamin penggantian kemungkinan kerugian yang diderita oleh PIHAK PERTAMA yang diakibatkan tindakan PIHAK KEDUA, maka pihak kedua diwajibkan menyerahkan Bank Garansi yang dikeluarkan oleh Bank Pemerintah, yang besarnya dan jangka waktunya atas rekomendasi PIHAK PERTAMA.

Pasal 6  
S a n k s i

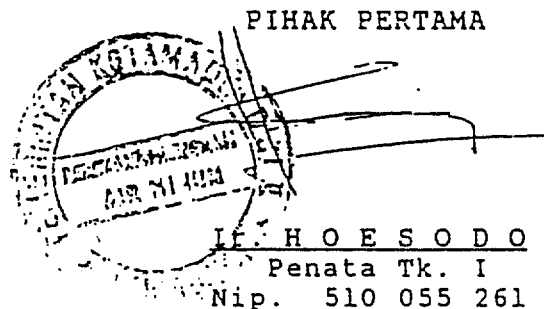
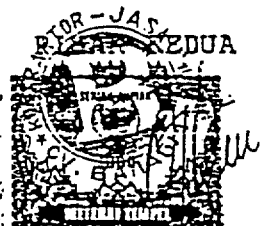
Apabila PIHAK KEDUA tidak memenuhi ketentuan dalam Perjanjian ini, maka PIHAK PERTAMA akan segera melakukan tuntutan Penagihan (Claim) kepada Bank yang mengeluarkan Bank Garansi sebesar jumlah kerugian yang diderita oleh PIHAK PERTAMA.

Pasal 7  
Ketentuan lain

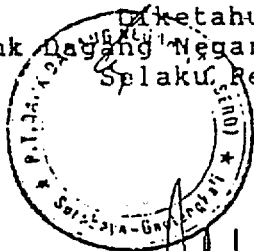
Hal - hal yang belum diatur dalam Surat Perjanjian ini akan diatur kemudian atas persetujuan kedua belah pihak dalam bentuk Addendum.

Pasal 8

Surat Perjanjian ini dibuat rangkap 3 (tiga), yang ditanda tangani oleh PIHAK PERTAMA dan PIHAK KEDUA dan diketahui oleh Bank yang menerbitkan Bank Garansi PIHAK KEDUA, dengan catatan dua lembar pertama bermeterai Rp. 1000,--



Bank Dagang Negara Cab. Surabaya Genteng Kali  
Selaku Pemberi Bank Garansi



Mufid Mubandadi  
MADYA I / NIP. 04418

**ANNEX B**

---

**PDAM SURABAYA BILLING AND COLLECTION SYSTEM**

***Garansi Bank*, dated December 30, 1992 - standard form of bank guarantee  
for billing and collection contractors.**



# GARANSI BANK

No. 33 / 1943 / PELAKSANAAN PEKERJAAN (PERFORMANCE BOND)

BANK DAGANG NEGARA berkedudukan di Jakarta, juga mempunyai kantor di Surabaya Tunjungan =x=  
yang selanjutnya disebut "BANK".

Atas permintaan dari

berkedudukan/bertempat tinggal di

yang selanjutnya disebut "PIHAK YANG DIJAMIN"

untuk kepentingan PERUSAHAAN DAERAH AIR MINUM PEMERINTAH KOTAMADYA DAERAH TK. II SURABAYA

berkedudukan/bertempat tinggal di Jl. Mayjen Prof. Dr. Moestopo No. 2, Surabaya =x=

yang selanjutnya disebut "PIHAK PENERIMA JAMINAN".

Dengan ini menyatakan :

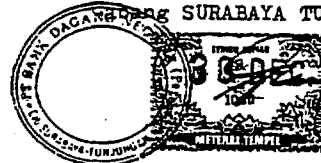
- Menjamin kepada PIHAK PENERIMA JAMINAN untuk membayar kepadanya uang sejumlah maksimum Rp. (terbilang) rupiah) dalam hal PIHAK YANG DIJAMIN tidak memenuhi kewajibannya dalam melaksanakan pekerjaannya sebagaimana telah ditetapkan dalam Surat Perjanjian Borongan No. tanggal 16 Desember 1992 antara PIHAK YANG DIJAMIN dan PIHAK PENERIMA JAMINAN.
- Menunjuk pada pasal 1832 Kitab Undang-Undang Hukum Perdata, BANK melepaskan hak-hak istimewa untuk menuntut supaya benda-benda PIHAK YANG DIJAMIN lebih dahulu disita dan dijual guna melunasi hutangnya sebagaimana dimaksud dalam pasal 1831 Kitab Undang-Undang Hukum Perdata.
- Garansi Bank ini berlaku untuk jangka waktu 12 (=x= Dua belas =x=) bulan/hari\*) terhitung mulai tanggal 01 Januari 1993 sampai dengan tanggal 31 Desember 1993
- Tuntutan penagihan (klaim) atas Garansi Bank ini dapat dilaksanakan oleh PIHAK PENERIMA JAMINAN dengan pemberitahuan tertulis kepada BANK segera setelah timbul wan-prestasi oleh PIHAK YANG DIJAMIN dengan batas waktu pengajuan terakhir selambat-lambatnya 14 (empat belas) hari setelah berakhirnya Garansi Bank ini, sesuai dengan Surat Perjanjian Borongan tersebut di atas dengan disertai buku-bukti selengkapannya.
- Garansi Bank ini tidak berlaku lagi apabila :
  - PIHAK YANG DIJAMIN telah memenuhi kewajibannya sesuai dengan Surat Perjanjian Borongan tersebut di atas walaupun jangka waktu Garansi Bank ini belum berakhir.
  - Jangka waktu tuntutan penagihan (klaim) telah berakhir tanpa adanya tuntutan penagihan (klaim) dari PIHAK PENERIMA JAMINAN.
  - Ada pernyataan tentang tidak berlakunya Garansi Bank atau pernyataan tentang selesainya perhitungan atas Garansi Bank ini sebelum berakhirnya jangka waktu Garansi Bank, yang harus ditandatangani oleh PIHAK PENERIMA JAMINAN dan PIHAK YANG DIJAMIN di atas meterai secukupnya.

Bila Garansi Bank ini telah dipenuhi dan atau tidak berlaku lagi, maka Garansi Bank ini wajib dikembalikan kepada BANK.

- Untuk keperluan pemberian Garansi Bank ini beserta segala akibat yang timbul dari padanya, BANK memilih domisili yang umum dan tetap pada Kantor Panitera Pengadilan Negeri di Surabaya =x=

Surabaya, 30 Desember 1992

PT. BANK DAGANG NEGARA ( Persero )  
Surabaya Tunjungan



BEST AVAILABLE COPY

M h m m a d



**ANNEX C**

---

**PDAM SURABAYA BILLING AND COLLECTION SYSTEM**

***Lampiran Surat Keputusan Direksi PDAM Kotamadya Dati II Surabaya Number KPTS/30/411.61/85, dated April 23, 1985 - attachment letter to PDAM decree delineating the graduated payment scale for contractors.***

Lampiran Surat Keputusan Direksi PDAM Surabaya

Nomor : KPTS/40/411/85

Tanggal : 23 APR 1985

Perhitungan Besarnya Premi Penagihan

No.	Prosentase rata-rata dan prosentase yang tertagih dari jumlah lembar dan nilai rupiah rekening, dan sudah disetor ke Kas PDAM dengan tepat (waktunya maupun jumlahnya).	Besarnya Prosentase Premi Penagihan atau nilai Rupiah yang tertagih (diberikan dengan syarat menyertakan lampiran model J/T 1, 2, 3, 4, 5).
1.	Tertagih 70,00 %	0,50 % (nol koma lima)
2.	Tertagih >70,00% s/d 72,50%	1,00 % (satu koma nol)
3.	Tertagih >72,50% s/d 77,50%	1,50 % (satu koma lima)
4.	Tertagih >77,50% s/d 82,50%	2,00 % (dua koma nol)
5.	Tertagih >82,50% s/d 85,00%	2,70 % (dua koma tujuh)
6.	Tertagih >85,00% s/d 87,50%	2,90 % (dua koma sembilan)
7.	Tertagih >87,50% s/d 90,00%	3,10 % (tiga koma satu)
8.	Tertagih >90,00% s/d 92,50%	3,40 % (tiga koma empat)
9.	Tertagih >92,50% s/d 95,00%	3,70 % (tiga koma tujuh)
10.	Tertagih >95,00% s/d 97,50%	4,00 % (empat koma nol)
11.	Tertagih >97,50% s/d <100,00%	4,30 % (empat koma tiga)
12.	Tertagih 100,00 %	4,60 % (empat koma enam)
13.	Membayar lebih dahulu 100,00 %	5,00 % (lima koma nol)

Catatan :

1. Setelah rekening air diterima oleh Juru Tagih untuk ditagihkan, maka resiko yang berhubungan dengan kehilangan rekening (uangnya) atau kerugian yang diderita berkaitan dengan kegiatan penagihan maka sesuai dengan perjanjian yang ada, sepenuhnya menjadi tanggung jawab Juru Tagih Rekening Air yang bersangkutan.

12

**ANNEX D**

---

**PDAM TIRTANADI MEDAN SERVICE CONTRACTS**

***Surat Perjanjian Kerja Sama Tentang Penagihan Kwitansi Air, dated August 25, 1993 - contract for billing and collection services.***



# PERUSAHAAN DAERAH AIR MINUM TIRTANADI

JL. S. M. RAJA NO. 1 \* PO. BOX. 274 \* TELEPON (061) 325888 \*  
 TELEX 51848 TIRTA-IA \* FAC. (061) 325771 \*  
 MEDAN 20212

## SURAT PERJANJIAN KERJA SAMA TENTANG PENAGIHAN KWITANSI AIR NOMOR : /SPJN/KEU/93

ANTARA  
 P.D.A.M. TIRTANADI  
 DENGAN

Pada hari ini Rabu, tanggal dua puluh lima bulan Agustus, tahun seribu sembilan ratus sembilan puluh tiga (25-08-1993), kami yang bertanda tangan dibawah ini masing-masing :

I Drs.H. Ihutan Ritonga, Direktur Utama Perusahaan Daerah Air Minum Tirtanadi, yang diangkat dan ditetapkan berdasarkan Surat Keputusan Gubernur KDH Tingkat I Sumatera Utara No.536-173/k/1990 tanggal 16 Maret 1990, oleh karenanya bertindak untuk dan atas nama perusahaan tersebut, sesuai dengan Peraturan Daerah Propinsi Daerah Tingkat I Sumatera Utara (PERDA) no. 25 tahun 1985, yang selanjutnya didalam Surat Perjanjian Kerja Sama ini disebut PIHAK PERTAMA.-

II.

Pihak Pertama dan Pihak Kedua berdasarkan :

1. Surat PDAM Tirtanadi no. 61/Dir/Keu/93 tanggal 23 Mei 1993, tentang penghapusan fee komputer.-
2. Surat CV Multi Jasa no. 071/MJ-93 tanggal 24 Mei 1993, tentang perpanjangan waktu peredaran kwitansi dan perobahan struktur imbalan jasa/fee penagihan kwitansi air.-
3. Rapat yang dilakukan dengan CV Multi Jasa untuk membahas surat tersebut diatas, yang hasilnya telah tertuang dalam notulen rapat.

4. Evaluasi.....

4. Evaluasi atas pelaksanaan kerja sama tentang penagihan kwitansi air minum selama 4 (empat tahun). adalah dimaksudkan untuk lebih mengefektifkan penagihan dan mengefisiensikan tugas. wewenang dan tanggung jawab masing-masing pihak.-
5. Surat Gubsu no:690-203.32 tanggal 21 Agustus 1993 tentang perse-  
tujuan perpanjangan kerja sama dengan CV.Multi Jasa.

Dengan ini kedua belah pihak menyatakan sepakat dan setuju untuk membuat surat Perjanjian Kerja Sama Tentang Penagihan Kwitansi Air Minum sebagaimana diuraikan dalam pasal-pasal perjanjian dibawah ini sebagai berikut :

#### PASAL - 1 JENIS KERJA SAMA

- 1.1 Pihak Pertama menyerahkan tugas, wewenang dan tanggung jawab penagihan kwitansi air kepada Pihak Kedua, dan untuk itu Pihak Kedua telah menerima dan menyatakan kesanggupannya untuk melaksanakan tugas,wewenang dan tanggung jawab tersebut dengan baik, berdasarkan petunjuk dan peraturan yang berlaku di Perusahaan Pihak Pertama.-
- 1.2 Pelimpahan tugas, wewenang dan tanggung jawab penagihan kwitansi air kepada Pihak Kedua tersebut meliputi daerah/wilayah yang dikenal sebagai berikut :
  - 1.2.1 Wilayah/Cabang Utama Medan
  - 1.2.2 Wilayah/Cabang Sei Agul
  - 1.2.3 Wilayah/Cabang Medan Denai
  - 1.2.4 Wilayah/Cabang Belawan
  - 1.2.5 Wilayah/Cabang Sunggal
  - 1.2.6 Wilayah/Cabang Padang Bulan
  - 1.2.7 Wilayah/Cabang Deli-Tua
  - 1.2.8 Wilayah/Cabang Berastagi

#### PASAL - 2 KWITANSI BULAN BERJALAN, PENGAMBILAN PEREDARAN DAN PENGEMBALIANNYA

- 2.1 Pihak Pertama dan Pihak Kedua , sepakat didalam memberikan pengertian Kwitansi Bulan Berjalan,adalah kwitansi yangditagih mulai pada tanggal 05 bulan kwitansi itu sendiri sampai dengan tanggal 26 bulan berikutnya.(Bulan berikutnya adalah bulan pertama setelah bulan kwitansi). Contoh : Kwitansi bulan Juli 1993 akan ditagih mulai dari tanggal 05 Juli 1993 sampaidengan tanggal 26 Agustus 1993.-
- 2.2 Pihak Kedua mengambil kwitansi bulan berjalan tersebut secara bertahap dari Pihak Pertama mulaidari tanggal 04 sampai dengan tanggal 30/31 pada bulan kwitansi itu sendiri.-
- 2.3 Pihak Kedua berkewajiban untuk mengedarkan kwitansi bulan berjalan tersebut secara bertahap kepada seluruh Pelanggan mulai dari tanggal 05 bulan kwitansi dan selesai selambat lambatnya pada tanggal 26 bulan berikutnya.-

2.4 Jika dalam.....

- 2.4 Jika dalam masa peredaran seperti tersebut pada pasal 2.3 diatas terdapat hari-hari besar atau hari-hari libur umum maka masa peredaran untuk kwitansi bulan berjalan tersebut dengan sendirinya diperpanjang selama hari besar/hari libur tersebut, terhitung sejak tanggal 27 bulan berikutnya dan paling lama sampai akhir bulan berikutnya.
- 2.5 Hari Minggu dan hari-hari besar lainnya yang bersamaan waktunya dengan hari Minggu tidak dapat memperpanjang masa peredaran kwitansi, sebagaimana yang dimaksudkan pada pasal 2.4 diatas.
- 2.6 Penyimpangan dari ketentuan seperti tersebut pada pasal 2.3 dan pasal 2.4 diatas hanya dapat dilakukan akibat keadaan force mayor seperti bencana alam, kebakaran, keadaan darurat perang dan politik yang mengakibatkan lumpuhnya perekonomian.-
- 2.7 Kwitansi yang belum tertagih dan telah dapat dipastikan tidak tertagih lagi serta kwitansi yang telah habis masa penagihannya, maka pengembaliannya dapat diproses terus oleh Pihak Kedua dan selesai selambat-lambatnya pada tanggal 30/31 bulan berikutnya, dengan memperhatikan dan mempedomani perpanjangannya sesuai ketentuan seperti tersebut pada pasal 2.4 diatas. Pengembalian kwitansi tersebut harus disertai dengan lampiran data-data komputer sebagai berikut :
- 2.7.1 Bulan kwitansi
  - 2.7.2 Daerah / Wilayah Pelanggan
  - 2.7.3 Nomor Pelanggan Air ( NPA ).-
  - 2.7.4 Jenis dan rekapitulasi tarif.
  - 2.7.5 Nilai rupiah
  - 2.7.6 Jumlah lembar.
- 2.8 Khusus pengembalian kwitansi dalam bentuk uang tunai dapat dilakukan selambat-lambatnya 3(tiga)hari setelah tanggal tersebut pada pasal 2.7 diatas. Lewat dari waktu tersebut akan dikenakan denda untuk setiap lembar kwitansi yang besarnya sesuai dengan golongan tarif sebagai berikut :
- 2.8.1 Tarif: S1, S2, NN1, NN2, NN3 dan NN4 sebesar Rp 2.000,-
  - 2.8.2 Tarif: N1 dan N2 ..... sebesar Rp 3.000,-
  - 2.8.3 Tarif: IN1, IN2 dan K ..... sebesar Rp 5.000,-
- 2.9 Asli lembar kwitansi yang tidak dikembalikan kepada Pihak Pertama, sungguhpun pada kenyataannya belum tertagih dari para Pelanggan atau hilang akibat kelalaian Pihak Kedua, maka yang demikian dianggap telah tertagih, terkecuali berdasarkan bukti bukti yang dapat dipertanggung jawabkan, kwitansi tersebut terbakar, hanyut/tenggelam, dan sebab-sebab lainnya diluar kekuasaan manusia, maka kwitansi dimaksud dapat diproses kembali oleh Pihak Pertama atas beban dan biaya Pihak Kedua.
- 2.10 Pihak Pertama didalam menyediakan kwitansi yang akan diberikan kepada Pihak Kedua, berusaha melayaninya dengan baik dan tepat waktu serta tidak akan menunda-nunda distribusinya.-

PASAL - 3.....

PASAL - 3  
J A M I N A N   D A N   S E T O R A N

- 3.1 Pihak kedua didalam menjalankan tugas, wewenang dan tanggung jawab tersebut, harus menyerahkan uang jaminan sebesar 100 % dari jumlah nilai kwitansi yang diambil dan sisa kwitansi yang belum tertagih, jaminan mana adalah dalam bentuk Bank Garansi yang dikeluarkan oleh Bank Pemerintah atau Bank yang diakui oleh Pemerintah/Departemen Keuangan.-
- 3.2 Hasil penagihan kwitansi setiap hari harus disetorkan langsung ke Rekening Pihak Pertama di Bank Pembangunan Daerah Sumatera Utara Cabang Utama Medan, AC 8000. atau Bank lain yang ditunjuk oleh Pihak Pertama, paling lambat satu hari setelah selesai penagihannya. Penyetoran terakhir telah selesai pada tanggal 26 bulan berikutnya dengan memperhatikan perpanjangannya sesuai ketentuan seperti tersebut pada pasal 2.4 dan 2.5 diatas. Penyetoran yang dilakukan lewat ketentuan tersebut tidak diperhitungkan dengan Fee.
- 3.3 Tanda bukti setoran Bank dari hasil penagihan kwitansi air tersebut, harus diserahkan kepada Pihak Pertama dengan segera dan untuk itu Pihak Pertama berkewajiban untuk melakukan Comformance / penyesuaian dengan Bank bersangkutan.-
- 3.4 Tanda Bukti Setoran hasil penagihan Kwitansi Air, yang diserahkan Pihak Kedua kepada Pihak Pertama, berupa Nota Bank tersebut, harus disertai dengan lampiran data komputer yang berisikan data-data sebagaimana diuraikan dibawah ini yaitu :
- 3.4.1 Bulan Kwitansi Air yang disetorkan.
  - 3.4.2 Daerah / Wilayah Pelanggan.
  - 3.4.3 Nomor Pelanggan Air (NPA).
  - 3.4.4 Jenis dan Rekapitulasi tarif.
  - 3.4.5 Nilai Rupiah.
  - 3.4.6 Jumlah lembar.
- 3.5 Apabila Pihak Kedua tidak menyetorkan uang hasil penagihan Kwitansi Air sebagaimana telah diatur dan ditetapkan pada pasal 3.2 diatas, maka satu hari setelah terjadinya kelalaian tersebut, Bank Garansi yang ada akan dicairkan oleh Pihak Pertama dari Bank yang bersangkutan, sejumlah hasil tagihan yang tidak disetorkan tersebut.-

PASAL - 4  
T A R G E T ,   I M B A L A N / F E E   D A N   S A N K S I

- 4.1 Pihak Kedua didalam menjalankan tugas, wewenang dan tanggung jawab atas penagihan kwitansi air tersebut, minimal harus dapat mencapai target 80 % (delapan puluh persen) dari jumlah

seluruh nilai.....

seluruh nilai kwitansi dan 85 % (delapan puluh lima persen) dari jumlah lembar kwitansi. yang diserahkan Pihak Pertama kepada Pihak Kedua, untuk setiap kwitansi bulan berjalan.-

- 4.2 Apabila Pihak Kedua tidak dapat mencapai salah satu atau kedua duanya target minimal seperti tersebut pada pasal 4.1 diatas maka Pihak Kedua tidak berhak memperoleh imbalan jasa/fee dari Pihak Pertama. Untuk ketentuan ini Pihak Kedua telah memahami dan telah menyetujuinya.-
- 4.3 Untuk menentukan tingkat persentase target tertagih adalah dengan membandingkan jumlah lembar/rupee kwitansi yang tertagih/disetorkan dengan jumlah lembar/rupee kwitansi yang diambil oleh Pihak Kedua, dikalikan dengan 100 %, dengan pembulatan diatas 0,51 dibulatkan menjadi 1 (satu).-
- 4.4 Pelanggan yang belum / tidak bersedia membayar kwitansi airnya dengan alasan yang dapat dipertanggung jawabkan dan setelah dilaporkan kepada Pihak Pertama kebenarannya dapat diterima. terhadap kwitansi yang demikian tidak dimasukkan pada kategori target yang harus dicapai oleh Pihak Kedua.-
- 4.5 Imbalan jasa/fee atas hasil penagihan kwitansi air ini, berpedoman kepada persentase target dan nilai kwitansi yang tertagih/disetorkan selama jangka waktu penagihan. Besarnya dihitung dari persentase yang telah disepakati bersama dikalikan dengan jumlah rupee kwitansi tertagih dan yang disetorkan. Adapun imbalan jasa/fee tersebut telah dijabarkan dalam angka-angka sebagai berikut :

TARGET	JASA/FEE	TARGET	JASA/FEE
80 %	3,02 %	90 %	4,07 %
81 %	3,08 %	91 %	4,23 %
82 %	3,15 %	92 %	4,40 %
83 %	3,23 %	93 %	4,58 %
84 %	3,32 %	94 %	4,77 %
85 %	3,42 %	95 %	4,97 %
86 %	3,53 %	96 %	5,18 %
87 %	3,65 %	97 %	5,40 %
88 %	3,78 %	98 %	5,63 %
89 %	3,92 %	99 %	5,87 %
		100 %	6,12 %

Dalam tabel fee tersebut diatas tidak termasuk PPN 10 %

- 4.6 Terhadap target kwitansi tertagih, dan tabel imbalan jasa/fee seperti yang telah disusun pada pasal 4.5 diatas adalah merupakan pedoman dasar yang sewaktu-waktu dapat dilakukan evaluasi, guna ditetapkan yang lebih sesuai dengan perkembangan ekonomi serta situasi dan kondisi pada saat itu.-

Pasal - 5.....



PASAL - 5  
SYARAT-SYARAT DAN CARA PEMBAYARAN FEE

- 5.1 Imbalan jasa/fee berdasarkan tabel fee tersebut pada pasal 4.5 dibulatkan kebawah menjadi kelipatan Rp.100,-kemudian ditambah pajak pertambahan nilai sebesar sepuluh persen ( PFN 10 % ) dibayarkan kepada Pihak Kedua dengan cara sebagai berikut :
- 5.1.1 Bila penagihan telah selesai 100 %,dan target/persentase hasil penagihan berdasarkan jumlah lembar dan nilai rupiah kwitansi telah diketahui dengan pasti, serta perhitungan atas kwitansi tersebut telah rampung seluruhnya, maka imbalan/fee dapat dibayar seluruhnya ( 100% ).-
- 5.1.2 Bila penagihan telah selesai 100 %,dan target/persentase hasil penagihan berdasarkan nilai kwitansi telah diketahui dengan pasti, tetapi perhitungan belum rampung seluruhnya, maka fee yang dapat dibayar adalah sebesar 80 % (termyn I), sisanya sebesar 20 % lagi (termyn II) akan dibayar apabila perhitungan telah rampung seluruhnya.-
- 5.1.3 Dalam halnya pembayaran fee termyn I ( 80 % ) telah dilaksanakan, dan pada waktu perhitungan telah rampung seluruhnya, ternyata target atas lembar tidak tercapai, maka sesuai dengan ketentuan pasal 4.2 diatas Pihak Kedua tidak berhak memperoleh imbalan/fee.Karena itu fee termyn I sebesar 80 % yang telah diterima oleh Pihak Kedua harus segera dikembalikan, atau sebagai gantinya Bank Garantie yang telah diserahkan oleh Pihak Kedua akan dicairkan oleh Pihak Pertama.-
- 5.2 Apabila dalam perhitunganakhir seperti tersebut pada pasal 5.1 diatas masih ada kekurangan dari jumlah yang semestinya harus disetorkan,maka kepada Pihak Kedua dikenakan denda sebesar 1,5% dari jumlah kekurangan tersebut,dan hasilnya dibulatkan keatas menjadi kelipatan Rp 100;-.
- 5.3 Pembayaran atas kekurangan setoran dan denda-denda seperti tersebut pada pasal 2.8 dan 5.2 diatas, telah dilaksanakan oleh Pihak Kedua sebelum imbalan jasa/fee hasil penagihan kwitansi bulan yang bersangkutan dibayar oleh Pihak Pertama.-

PASAL - 6  
BIAYA ADMINITRASI

- 6.1 Biaya-biaya yang dibutuhkan untuk pengadaan data-data komputer dalam rangka melengkapi data-data atas kwitansi air yang tertagih dan yang tidak tertagih serta yang dikembalikan dan laporan-laporan lainnya yang dibutuhkan oleh Pihak Pertama dari Pihak Kedua sepenuhnya menjadi tanggungan Pihak Kedua.-

6.2 Biaya yang.....

- 6.2 Biaya yang dikeluarkan untuk pengadaan blanko kwitansi, serta pemerosesan pembuatan kwitansi melalui komputer sampai dengan terbitnya kwitansi di perusahaan Pihak Pertama adalah menjadi tanggungan/beban Pihak Pertama.-
- 6.3 Apabila kwitansi yang telah diserahkan kepada Pihak Kedua, telah hilang/rusak, terbakar, hanyut, dan hal-hal lain diluar kekuasaan manusia, maka kwitansi yang demikian dapat diproses penerbitannya atas beban dan biaya Pihak Kedua.-
- 6.4 Biaya administrasi untuk pengadaan formulir setoran, meterai setoran, lampiran bukti setoran, tanda terima pengembalian kwitansi dari Pihak Kedua kepada Pihak Pertama dan pengadaan blanko untuk lampiran kwitansi yang belum tertagih, sepenuhnya menjadi tanggungan Pihak Kedua.-

PASAL - 7  
KETENTUAN LAINNYA DAN PELANGGARAN

- 7.1 Pihak Kedua didalam menjalankan tugas, wewenang dan tanggung jawab tersebut, tetap tunduk dan mematuhi ketentuan-ketentuan umum yang berlaku dilingkungan PDAM Tirtanadi, terutama yang berkenaan dengan tata krama, sopan santun penagih, baik dalam memepergunakan pakaian dinas, atribut serta pelayanan/sevice kepada masyarakat dan pelanggan.-
- 7.2 Pihak Kedua didalam menjalankan tugas, wewenang dan tanggung jawab tersebut, harus tetap menjaga nama baik perusahaan Pihak Pertama (PDAM Tirtanadi).
- 7.3 Pihak Kedua dan para petugasnya, tidak dibenarkan memberikan keterangan dalam bentuk apapun dan kepada siapapun yang berkenaan dengan kebijaksanaan Perusahaan Pihak Pertama, terkecuali yang berkaitan dengan tugas, wewenang dan tanggung jawab Pihak Kedua, itupun hanya terbatas kepada pelanggan saja.
- 7.4 Pihak Kedua tidak dibenarkan mengambil kebijaksanaan apapun tanpa sepengetahuan Pihak Pertama berkenaan dengan hubungan antara Pihak Pertama dengan para pelanggan, seperti antara lain pemindahan meter air dari tempat semula, penukaran meter air, pemutusan aliran air dan lain-lain sebagainya.
- 7.5 Tenaga - tenaga yang dipekerjakan oleh Pihak Kedua dalam menjalankan tugas, wewenang dan tanggung jawab tersebut, tidak mempunyai hubungan apapun dengan perusahaan Pihak Pertama (PDAM Tirtanadi), baik hubungan kerja maupun hubungan kesejahteraan.
- 7.6 Pelanggaran - pelanggaran yang dilakukan oleh Pihak Kedua didalam menjalankan tugas, wewenang dan tanggung jawab tersebut setelah diperingatkan tiga kali berturut-turut secara tertulis tetapi tidak menunjukkan perubahan untuk perbaikan, maka hal ini dapat mengakibatkan dilakukannya pemutusan hubungan kerja secara sepihak tanpa pemberitahuan sebelumnya.-

Pasal - 8.....

PASAL - 8  
P E N U T U P

- 8.1 Surat Perjanjian Kerja Sama ini, mulai berlaku sejak penagihan kwitansi air bulan Juli 1993 sampai dengan selesainya penagihan kwitansi air bulan Juni 1996.-
- 8.2 Surat Perjanjian Kerja Sama ini, sewaktu-waktu dapat ditinjau atau diperpanjang atas persetujuan Kedua Belah Pihak, tanpa beraknirnya Jangka Waktu Surat Perjanjian seperti tersebut pada pasal 8.1 diatas. Untuk maksud peninjauan atau perpanjangan ini, masing-masing pihak harus memberitahukannya secara tertulis 3(tiga) bulan sebelumnya kepada pihak lainnya, baik untuk maksud pemutusan hubungan kerja maupun untuk permohonan Pihak Kedua dengan maksud perpanjangan.-
- 8.3 Hal-hal yang belum diatur dalam Surat Perjanjian Kerja Sama ini, akan dimusyawarahkan kedua belah pihak, dan hasilnya akan dituangkan dalam bentuk Addendum yang merupakan bahagian yang tidak dapat dipisahkan dari Surat Perjanjian Kerja Sama ini.-
- 8.4 Akan halnya tidak diperoleh kesepakatan diantara kedua belah pihak didalam musyawarah, maka kedua belah pihak menunjuk pihak ketiga untuk menengahnya, dan apabila masih juga tidak diperoleh penyelesaian, maka kedua belah pihak memilih domisili hukum yang tidak berubah-ubah pada panitera Pengadilan Negeri di Medan.-
- 8.5 Dengan keluarnya Surat Perjanjian Kerja Sama ini, maka Surat Perjanjian Kerja Sama tentang penagihan kwitansi air yang ada sebelumnya antara kedua belah pihak dinyatakan tidak berlaku lagi.-
- 8.6 Demikian Surat Perjanjian Kerja Sama ini kami tanda tangani dalam keadaan sehat dan tanpa adanya tekanan dari pihak manapun juga, ditanda tangani dalam rangkap 2 (dua), bermeterai cukup, untuk mana masing-masing pihak memilikinya dan mempunyai kekuatan hukum yang sama.

Medan, 25 AGUSTUS 1993

PIHAK KEDUA

PIHAK PERTAMA

DRS.H. IHUTAN RITONGA

ANNEX E

---

**NUSA DUA WATER SUPPLY SYSTEM**

***Kesepakatan Bersama***, dated September 24, 1990 - memorandum of understanding (MOU).

***Kesepakatan Membentuk Perusahaan Patungan***, dated March 5, 1991 - agreement to form joint venture.

KESEPAKATAN BERSAMA  
-----  
MEMORANDUM OF UNDERSTANDING

Surat Kesepakatan Bersama (Memorandum of Understanding) ini ditandatangani pada hari Senin tanggal Dua Puluh Empat bulan September tahun Seribu Sembilan Ratus Sembilan Puluh, antara :

- PERUSAHAAN DAERAH AIR MINUM KABUPATEN DAERAH TINGKAT II BADUNG, dengan alamat jalan Ahmad Yani No 92, Denpasar, dalam hal ini diwakili oleh Ir. Uki Ashardiyatno selaku Direktur PDAM Kabupaten Daerah Tingkat II Badung, Propinsi Bali, yang selanjutnya disebut PIHAK 1.
- PT. MAHASARA BUANA, yang tergabung dalam HUMPUSS GROUP INDONESIA dengan alamat Gedung Wisma Antara lantai 8, Jalan Merdeka Selatan 17, Jakarta Pusat dan PT. INTAN DYANDRA MULYA dengan alamat Gedung Wisma Dharmala Sakti lantai 15, Jalan Jenderal Sudirman Kavling 32 Jakarta Pusat, yang dalam hal ini diwakili oleh Soetikno Soedarjo selaku Direktur Utama PT. MAHASARA BUANA dan oleh Tony Pramodiarsa selaku Direktur PT. INTAN DYANDRA MULYA, yang semuanya merupakan Perusahaan Swasta Nasional dan secara bersama-sama selanjutnya disebut PIHAK II.

A. UMUM

1. Dasar Kesepakatan Bersama (Memorandum of Understanding).

- a. Kedua belah pihak berkeinginan untuk berpartisipasi didalam meningkatkan pembangunan di negara Republik Indonesia.
- b. Kedua belah pihak bertujuan berpartisipasi didalam penyediaan air bersih/air minum dikawasan "Wilayah Usaha" di Kabupaten Daerah Tingkat II Badung, Bali, dan mempunyai kesimpulan yang sama bahwa usaha ini dapat dilaksanakan bersama.
- c. Kedua belah pihak secara timbal balik memutuskan suatu kerjasama antara keduanya dan sepakat untuk membentuk suatu Badan Usaha sebagai wadah kerja sama.

2. Lingkup kerjasama.

- a. Lingkup kerjasama adalah merencanakan, membangun, mengoperasikan, memelihara dan mengelola sistem penyediaan air bersih, untuk melayani kebutuhan air bersih/air minum di kawasan "Wilayah Usaha" seperti yang tercantum pada butir B.2.

*to  
Tralga*

*83*

: 52\_00236.VVI

- b. Kedua belah pihak akan bekerjasama dalam membangun sistem penyediaan air bersih Tukad Ayung II, sehingga sistem tersebut terintegrasi dengan sistem Tukad Ayung I, dan kedua belah pihak mengelola sistem penyediaan air bersih Tukad Ayung I dan Tukad Ayung II bersama-sama, tanpa menutup kemungkinan pengembangan lebih lanjut.

## B. ASPEK HUKUM DAN KELEMBAGAAN

### 1. Badan Usaha, Kedudukan dan Daerah Usaha.

Berdasarkan Peraturan Menteri Dalam Negeri Nomor 4 Tahun 1990, dan ketentuan-ketentuan hukum lainnya yang berlaku di Indonesia. Kedua belah pihak sepakat :

- a. Bentuk kerjasama adalah Perusahaan Patungan dimana PIHAK PERTAMA berkedudukan di Denpasar dan PIHAK KEDUA berkedudukan di Jakarta, akan membentuk Perseroan Terbatas (PT) yang sesuai menurut hukum di Indonesia dalam rangka Undang-Undang PMDN no 6 tahun 1968 termasuk perubahan-perubahannya.
- b. Dengan persetujuan PIHAK PERTAMA, PIHAK KEDUA dapat mengusulkan Perusahaan Swasta Nasional lainnya sebagai mitra usaha.
- c. Perusahaan tersebut akan didirikan dengan nama yang akan disepakati kemudian dan berkedudukan di Denpasar, Indonesia.
- d. Lingkup usaha dari Badan Usaha ini adalah menyediakan dana, merencanakan, membangun, mengoperasikan, dan memelihara dan mengelola sistem penyediaan air bersih, memasarkan air bersih dan menerima hasil dari penjualan air bersih di "Wilayah Usaha".

### 2. Wilayah Usaha.

Wilayah usaha meliputi kawasan Tanjung Benoa, Bona, Nusa Dua, Sawangan, Simpangan, Pecatu, Cenggiling, Ungasan, Uluwatu, Jimbaran, Kuta, Legian dan sekitarnya di Kecamatan Kuta, Kabupaten Daerah Tingkat II Badung, Propinsi Bali. Dalam memorandum of Understanding ini, wilayah usaha ini disebut WILAYAH USAHA.

### 3. Penguasaan.

- a. Air dan atau sumber-sumber air untuk penyediaan air bersih dikuasai Negara, sehingga Badan Usaha menyelenggarakan pemanfaatananya.

- b. Badan Usaha akan diberikan konsesi pemanfaatan sumber air yang diperlukan untuk penyediaan air bersih ini sesuai dengan lamanya konsesi Badan Usaha.
- c. PIHAK PERTAMA bertanggung jawab atas pengadaan izin pemanfaatan sumber air sesuai dengan peraturan yang berlaku dalam waktu 15 (lima belas) hari setelah penandatanganan Kesepakatan Bersama (Memorandum of Understanding) ini.

#### 4. Pemilikan.

- a. Selama masa konsesi, prasarana air bersih yang dibangun Badan Usaha merupakan milik Badan Usaha, dan setelah masa konsesi maka seluruh pemilikan Badan Usaha ini menjadi milik PIHAK PERTAMA.
- b. Badan usaha ini memiliki hak konsesi selama kurun waktu tertentu yang akan disepakati kemudian setelah proposal lengkap disusun oleh Pihak Kedua dan disepakati oleh Pihak Pertama. Konsesi ini dihitung sejak ditandatanganinya perjanjian konsesi.
- c. Hak konsesi dapat diperpanjang sesuai dengan kebutuhan dan peraturan yang berlaku.

#### 5. Tarif Air.

- a. Tarif air akan dihitung dengan memperhatikan keterjangkauan segmen lapisan masyarakat, serta mempertimbangkan besarnya investasi dan jangka waktu pengembaliannya dan juga dapat menjamin kelestarian berfungsinya prasarana dan sarana serta kesinambungan pelayanan kepada pelanggan.
- b. Tarif air akan tunduk kepada Peraturan Perundang-Undangan yang berlaku.

#### C. TEKNIS

##### 1. Usulan.

- a. PIHAK KEDUA berkewajiban untuk menyerahkan suatu proposal lengkap selambat-lambatnya 2 (dua) bulan setelah penandatanganan Kesepakatan Bersama (Memorandum of Understanding) ini, dengan memperhatikan usulan-usulan yang diajukan PIHAK PERTAMA.

- b. Selambat-lambatnya 1 (satu) bulan setelah menerima proposal lengkap dari PIHAK KEDUA, maka PIHAK PERTAMA berkewajiban untuk memberi tahu kepada PIHAK KEDUA tentang persetujuan proposal tersebut dengan catatan adanya perubahan atau penyempurnaan proposal bila diperlukan.

## 2. Perencanaan Teknik.

- a. Sebelum melaksanakan pembangunan sistem penyediaan air bersih, Badan Usaha terlebih dahulu harus membuat perencanaan teknis yang harus disetujui PDAM Kabupaten Daerah Tingkat II Bandung.
- b. Perencanaan dan pengawasan pembangunan sistem penyediaan air bersih ini akan dilaksanakan oleh Konsultan yang disepakati oleh kedua belah pihak, dengan mengacu pada Peraturan Pemerintah yang berlaku.

## 3. Sistem Penyediaan Air Bersih Yang Direncanakan.

Sistem penyediaan air bersih yang direncanakan harus mempertimbangkan dan sesuai dengan rencana pengembangan sistem penyediaan air bersih untuk pelayanan di kota Administratif Denpasar dan sekitarnya.

## 4. Kualitas Air Bersih.

Badan Usaha akan memproduksi dan menjaga kualitas air bersih sesuai standar air bersih di Indonesia yang ditetapkan oleh Departemen Kesehatan.

## 5. Pengembangan Sistem Penyediaan Air Bersih.

Selama masa konsesi Badan Usaha akan terus-menerus mengadakan pengembangan sistem produksi dan sistem distribusi di "Wilayah Usaha". Badan Usaha tetap berusaha memenuhi kebutuhan air yang berkembang di "Wilayah Usaha".

## 6. Pelaksanaan Proyek.

Pengadaan barang dan jasa yang diperlukan oleh Proyek akan mengutamakan Perusahaan/Produksi Dalam Negeri dan Harga Kompetitif, serta sesuai dengan ketentuan yang berlaku di Indonesia yang dikoordinasikan dengan PDAM Kabupaten Daerah Tingkat II Bandung. Pelaksanaan proyek ini sudah harus dimulai selambat-lambatnya 2 (dua) bulan sejak izin prinsip dikeluarkan oleh instansi yang berwenang dan kalau karena sesuatu hal, pelaksanaan proyek tidak dapat mulai dilaksanakan sesuai dengan jadwal waktu tersebut, maka PIHAK PERTAMA dapat melaksanakan proyek ini dengan cara lain dari yang disepakati dalam Kesepakatan Bersama (Memorandum of Understanding) ini.



#### D. KEUANGAN.

##### 1. Dana Yang Dibutuhkan.

Dana yang dibutuhkan akan ditentukan kemudian sesuai dengan perhitungan kebutuhan biaya yang diperlukan untuk pelaksanaan proyek air bersih di "Wilayah Usaha".

##### 2. Komponen Pembiayaan.

Komponen pembiayaan terdiri dari biaya persiapan, biaya perencanaan, biaya pelaksanaan pembangunan dan biaya operasi dan pemeliharaan sistem penyediaan air bersih di "Wilayah Usaha".

##### 3. Biaya persiapan.

Kedua belah pihak sepakat bahwa biaya persiapan yang dikeluarkan oleh kedua belah pihak dalam usaha pendirian Badan Usaha ini akan diperhitungkan sebagai beban Badan Usaha. Biaya persiapan dikeluarkan untuk persiapan penyusunan studi/proposal, negosiasi, akte notaris, dan pengeluaran biaya lainnya yang seluruhnya harus diketahui dan disetujui oleh kedua belah pihak, sesuai peraturan Pemerintah yang berlaku.

##### 4. Sumber Pemodal.

- a. Sumber pemodal berasal dari PIHAK PERTAMA, PIHAK KEDUA dan Badan Usaha itu sendiri.
- b. Nilai modal PDAM Kabupaten Daerah Tingkat II Badung sendiri yang sudah tertanam pada sistem penyediaan air bersih Takud Ayung I yang terintegrasi, sistem distribusi di kawasan pariwisata Nusa Dua dan sekitarnya, dihitung sebagai penyertaan modal dari PIHAK PERTAMA.
- c. Nilai investasi PDAM Kabupaten Daerah Tingkat II Badung akan diperhitungkan sesuai dengan nilai investasi saat ini (re-appraisal) yang dapat diterima dan disetujui oleh kedua belah pihak.
- d. Adanya "Good-will" Pemerintah Daerah pada Badan Usaha ini.
- e. Penyertaan modal PIHAK KEDUA dihitung sesuai dengan nilai saham PIHAK KEDUA dalam Badan Usaha.
- f. Untuk memenuhi kebutuhan dana diluar dari dana yang berasal dari PIHAK PERTAMA dan PIHAK KEDUA, maka Badan Usaha akan menggunakan pinjaman jangka panjang dari Bank atau Lembaga Keuangan yang lain. Pinjaman mana akan dikaitkan dengan proyeksi keuangan Badan Usaha, dimana Badan Usaha bertanggung-jawab penuh untuk pembayaran kembali hutang dan bunga pinjaman tersebut.

BEST AVAILABLE COPY

5. Hutang Badan Usaha.

Sisa hutang yang berasal dari pinjaman untuk pembangunan sistem penyediaan air bersih Tukad Ayung I disepakati oleh kedua belah pihak menjadi hutang Badan Usaha, dimana Badan Usaha bertanggung-jawab penuh untuk pembayaran kembali hutang dan bunga pinjaman tersebut yang akan diatur dalam perjanjian tersendiri.

6. Jaminan.

- a. PIHAK KEDUA Menjamin bahwa dana yang dibutuhkan akan tersedia pada waktu yang dibutuhkan sesuai dengan dana yang harus disediakan oleh PIHAK KEDUA, sebagai penyertaan modal PIHAK KEDUA.
- b. PIHAK PERTAMA menjamin mendapatkan izin prinsip dari Instansi atau Instansi-Instansi yang berwenang sesuai dengan Peraturan Perundang-Undangan yang berlaku.

7. Pemilikan Saham.

Kedua belah pihak sepakat bahwa pada awal pembentukan Badan Usaha ini susunan pemegang saham dari Badan Usaha ini berturut-turut adalah PIHAK PERTAMA sebesar kurang lebih 45% (empat puluh lima persen) dan PIHAK KEDUA sebesar kurang lebih 55% (lima puluh lima persen).

8. Pajak.

Badan Usaha akan mengikuti ketentuan perpajakan yang berlaku.

9. Pembagian Keuntungan.

Pembagian keuntungan sesuai dengan persentase pemilikan saham.

E. PENGELOLAAN.

1. Izin Operasional Badan Usaha.

Badan Usaha ini beroperasi selama masa konsesi, yang mana perjanjian dan operasionalnya mengikuti ketentuan dan Peraturan Perundang-Undangan yang berlaku di Indonesia, baik ditingkat Pusat maupun di Tingkat Daerah.

BEST AVAILABLE COPY

BEST AVAILABLE COPY

## 2. Manajemen.

Manajemen dari Badan Usaha akan dilaksanakan bersama sama oleh Kedua belah pihak dan akan dicantumkan dalam Akte Pendirian Badan Usaha.

## 3. Tenaga Kerja.

Badan Usaha ini akan menggunakan tenaga kerja yang telah berpengalaman dan profesional, dimana kualifikasi dan kuantitas tenaga kerjanya akan diatur bersama sesuai dengan kebutuhan, dan diutamakan tenaga dari PDAM Kabupaten Daerah Tingkat II Badung.

## F. LAIN-LAIN

### 1. Perselisihan.

- a. Dalam hal terjadi perselisihan, pertentangan atau perbedaan dalam penafsiran atau pelaksanaan Kesepakatan Bersama (Memorandum of Understanding) ini, kedua belah pihak akan mengusahakan sebaik mungkin untuk mencapai kesepakatan melalui musyawarah.
- b. Apabila tidak diperoleh kesepakatan, maka perselisihan, pertentangan atau perbedaan pendapat tersebut diajukan pada Panitia Arbitrasi. Panitia Arbitrasi ini terdiri dari tiga (3) anggota yang mengacu pada peraturan dan tata cara Badan Arbitrasi Nasional Indonesia (BANI). Anggota pertama yang ditunjuk PIHAK PERTAMA, anggota kedua yang ditunjuk PIHAK KEDUA dan anggota ketiga yang ditunjuk oleh kedua belah pihak. Keputusan Arbitrasi yang diterima oleh kedua belah pihak, bersifat pasti dan mengikat kedua belah pihak.
- c. Apabila keputusan Panitia Arbitrasi tidak mendapat persetujuan maka perselisihan pertentangan atau perbedaan pendapat tersebut akan diajukan kepada Pengadilan Negeri di Denpasar.

### 2. Force Majeur.

Apabila didalam pelaksanaan Kesepakatan Bersama (Memorandum of Understanding) ini terjadi force majeure / kejadian yang berada diluar kekuasaan kedua belah pihak, masing-masing pihak akan segera memberitahukan secara tertulis dalam jangka waktu paling lambat empat belas (14) hari setelah terjadinya peristiwa dan perjanjian menjadi batal demi hukum dan atau dapat ditinjau kembali.

BEST AVAILABLE COPY

### 3. Peraturan Pemerintah.

Apabila selama keberadaan Badan Usaha ini terjadi perubahan hukum dan peraturan oleh Pemerintah RI yang mempengaruhi hak dari setiap pemegang saham, maka perjanjian-perjanjian yang ada hubungannya dengan Kesepakatan Bersama (Memorandum of Understanding) ini, apabila perlu akan dimodifikasi untuk mencerminkan maksud awal dari Badan Usaha didalam menentukan hak para pemegang saham ini.

Demikian Kesepakatan Bersama (Memorandum of Understanding) ini dibuat atas kesepakatan kedua belah pihak. Dan segala sesuatu yang tidak tercantum dalam Kesepakatan Bersama (Memorandum of Understanding) ini akan dituangkan dalam suatu Perjanjian Usaha Patungan secara rinci yang isinya berlandaskan kepada isi Kesepakatan Bersama (Memorandum of Understanding) ini.

Kesepakatan Bersama (Memorandum of Understanding) ini mengikat Kedua belah pihak dan mulai berlaku pada hari dan tanggal, serta tahun sebagaimana tersebut diatas.

PIHAK PERTAMA:

BERTINDAK UNTUK DAN ATAS NAMA  
PDAM Kabupaten Dati II Badung



*[Signature]*  
Ashardiyatno,  
Direktur

PIHAK KEDUA:

BERTINDAK UNTUK DAN ATAS NAMA  
PT Mahasari Buana



*[Signature]*  
Sutikno Soedarjo  
Direktur Utama

BERTINDAK UNTUK DAN ATAS NAMA  
PT Intan Dyandra Mulya



*[Signature]*  
INTRA GROUP  
ALYAN DYANDRA MULYA  
Tonny Pramodiarso  
Direktur

SENIJETAHUI DAN MENYETUJUI  
BUPATI KABUPATEN DAERAH TINGKAT II BADUNG



*[Signature]*  
B. ALIT PUTRA

BEST AVAILABLE COPY

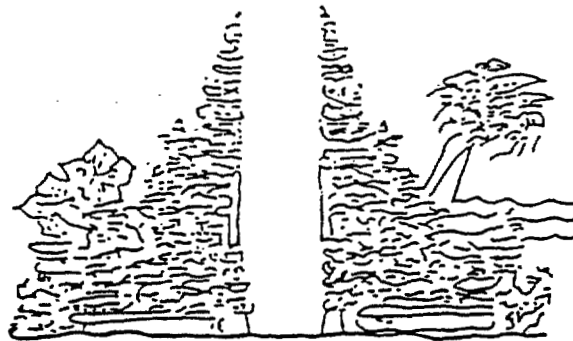
KESEPAKATAN  
MEMBENTUK PERUSAHAAN PATUNGAN

ANTARA

PERUSAHAAN DAERAH AIR MINUM  
KABUPATEN DAERAH TINGKAT II BADUNG

DENGAN

PT. MAHASARA BUANA  
PT. INTAN DYANDRA MULYA  
PT. DEWATA ARTHA KHARISMA



5 Maret 1991

BEST AVAILABLE COPY

Memperhatikan

- a. Undang-Undang no 2 tahun 1962 dan Undang-Undang no 6 tahun 1969 tentang Perusahaan Daerah.
- b. Undang-Undang no 5 tahun 1974 tentang Pokok-Pokok Pemerintahan di Daerah.
- c. Peraturan Menteri Dalam Negeri no 4 tahun 1990 tentang tata cara kerjasama Perusahaan Daerah dengan pihak ketiga.
- d. Surat Menteri Keuangan no S-956/MK.013/1990 tanggal 6 Agustus 1990, perihal permohonan bantuan pinjaman untuk proyek air bersih PDAM Badung, tahap I - fase 2.

PIHAK PERTAMA dan PIHAK KEDUA sepakat untuk mengikat diri dalam Persetujuan Pembentukan Perusahaan Patungan (selanjutnya disebut Persetujuan) dengan syarat-syarat sebagai berikut :

Pasal 1

PERUSAHAAN PATUNGAN DAN WILAYAH USAHA

PIHAK PERTAMA dan PIHAK KEDUA sepakat untuk menanam modal Patungan di Indonesia, yang sesuai menurut hukum di Indonesia dalam rangka Undang-Undang Penanaman Modal Dalam Negeri Republik Indonesia, dengan tujuan merencanakan, membangun, mengoperasikan, memelihara dan mengelola sistem penyediaan air bersih, untuk melayani kebutuhan air bersih di Wilayah Usaha yang meliputi kawasan Tanjung Benoa, Bualu, Nusa Dua, Sawangan, Simpangan, Pecatu, Cenggiling, Ungasan, Uluwatu, Jimbaran, Kuta, Legian dan sekitarnya di Kecamatan Kuta, Kabupaten Daerah Tingkat II Badung, Propinsi Bali, yang selanjutnya Wilayah Usaha dalam perjanjian ini disebut "Wilayah Usaha".

Pasal 2

PEMBENTUKAN PERSEROAN TERBATAS

- (1) Untuk keperluan mendapatkan persetujuan yang dinyatakan menurut Peraturan Perundang-undang di Indonesia, apabila menurut PIHAK PERTAMA dan PIHAK KEDUA dianggap layak dan menguntungkan, PIHAK PERTAMA dan PIHAK KEDUA akan mendirikan sebuah Perseroan Terbatas di Indonesia yang sesuai menurut hukum di Indonesia dalam rangka UU PMDN dengan nama P.T. Timbhartha Buanamulya ataupun nama lainnya, sebagai mitra usaha Pemerintah Daerah Kabupaten Daerah Tingkat II Badung dalam melaksanakan penyediaan dan pelayanan air bersih di "Wilayah Usaha" yang akan disepakati kemudian yang dapat diterima oleh PIHAK PERTAMA dan PIHAK KEDUA dan oleh Departemen Kehakiman Republik Indonesia (selanjutnya disebut "Perusahaan").
- (2) Perusahaan akan didirikan berdasarkan Akte Notaris ("Akte Pendirian"), berisi pasal-pasal kerjasama, (selanjutnya, diubah dari waktu ke waktu, disebut "Pasal-Pasal Kerjasama") dalam bentuk dan isinya (dalam bahasa Indonesia) dilampirkan sebagai Lampiran.

Handwritten marks: "N E b" and "92"

- (3) PIHAK PERTAMA dan PIHAK KEDUA akan menyusun Akte Pendirian Perusahaan disaksikan oleh Notaris Publik yang berdomisili di Indonesia, dapat diterima oleh kedua belah pihak dan akan mengajukan Akte Pendirian tersebut kepada Departemen Kehakiman R.I. untuk mendapat persetujuan Menteri Kehakiman.

### Pasal 3 MAKSUD DAN TUJUAN

- (1) Maksud dan tujuan Perusahaan ini adalah merencanakan, membangun, mengoperasikan, memelihara dan mengelola sistem penyediaan air bersih, untuk melayani kebutuhan air bersih di "Wilayah Usaha".
- (2) PIHAK PERTAMA dan PIHAK KEDUA sepakat, dalam melaksanakan maksud dan tujuan Perusahaan ini, akan dilakukan kerjasama dan koordinasi antara Perusahaan dengan Badan Usaha lainnya, yang membangun, mengoperasikan, memelihara dan mengelola sistem penyediaan air bersih untuk melayani kebutuhan air bersih masyarakat di kota administratif Denpasar dan sekitarnya, diluar "Wilayah Usaha" (c/q PDAM Kabupaten Daerah Tingkat II Badung), sehingga pelayanan air bersih terhadap masyarakat di kota administratif Denpasar dan sekitarnya termasuk di "Wilayah Usaha" dapat dilaksanakan dengan sebaik-baiknya.
- Dalam kerjasama dan koordinasi ini akan diatur sedemikian rupa sehingga pada saat diperlukan, pihak Perusahaan maupun Badan Usaha lainnya (c/q PDAM Kabupaten Daerah Tingkat II Badung) akan saling membantu dalam menyediakan dan melayani kebutuhan air bersih di kota administratif Denpasar dan sekitarnya maupun di "Wilayah Usaha". Kerjasama dan koordinasi ini akan diatur lebih lanjut dalam perjanjian tersendiri.

### Pasal 4 M O D A L

- (1) Perusahaan akan memiliki Modal Dasar senilai Rp 14.660.000.000,- (Empat belas milyar enam ratus enam puluh juta rupiah) terbagi atas 14.660 (Empat belas ribu enam ratus enam puluh) saham, tiap-tiap saham bernilai nominal senilai Rp 1.000.000,- (Satu juta rupiah).
- (2) Nilai modal PIHAK PERTAMA yang sudah tertanam pada sistem penyediaan air bersih Tukad Ayung I yang terintegrasi, sistem distribusi di kawasan pariwisata Nusa Dua dan sekitarnya, yang merupakan asset PIHAK PERTAMA sebesar Rp 5.572.000.000 (Lima milyar lima ratus tujuh puluh dua juta rupiah) berdasarkan hasil audit dan penilaian kembali pihak yang berwenang.

- 3) Penyertaan modal dari PIHAK PERTAMA diperhitungkan sebesar Rp 6.597.000.000,- (Enam milyar lima ratus sembilan puluh tujuh juta rupiah), yaitu 6.597 (Enam ribu lima ratus sembilan puluh tujuh) lembar saham atau sebesar 45% (Empat puluh lima per seratus) dari jumlah modal dasar.

Penyertaan modal PIHAK PERTAMA ini berasal dari :

- a. Nilai modal PIHAK PERTAMA yang sudah tertanam pada sistem penyediaan air bersih yang terintegrasi dengan sistem distribusi di kawasan pariwisata Nusa Dua dan sekitarnya sebesar Rp 5.572.000.000 (Lima milyar lima ratus tujuh puluh dua juta rupiah) atau 32% dari jumlah modal dasar.
- b. Nilai yang diperhitungkan sebagai tambahan modal PIHAK PERTAMA sebesar Rp 1.025.000.000,- (satu milyar dua puluh lima juta rupiah) atau kurang lebih 7% dari jumlah modal dasar, yang merupakan nilai tambah yang disepakati oleh kedua belah pihak, karena pihak pertama telah membangun Tukad Ayung I yang terintegrasi pada sistem penyediaan air bersih di Wilayah Usaha.

PIHAK PERTAMA berkewajiban memberikan konfirmasi kepada PIHAK KEDUA tentang penyertaan modal seperti yang tertera pada ayat (3.a) pasal ini, dari instansi-instansi yang berwenang sebagai kepastian hukum bahwa Pemerintah Daerah Tingkat II Badung telah melimpahkan asset tersebut kepada PIHAK PERTAMA.

- 4) PIHAK KEDUA akan menyertakan modalnya sebesar Rp 8.063.000.000,- (Delapan milyar enam puluh tiga juta rupiah), yaitu 8.063 (Delapan ribu enam puluh tiga) lembar saham atau 55% (lima puluh lima per seratus) dari modal tertanam.
- 5) PIHAK KEDUA akan menyetor penuh penyertaan modalnya sesuai dengan ketentuan dalam Akte Pendirian Perusahaan, dan Peraturan Perundang-Undangan yang berlaku.
- 6) Pada saat akhir kerjasama, PIHAK KEDUA wajib memindah namakan kepada PIHAK PERTAMA seluruh saham yang tersisa sesuai dengan perjanjian konsesi.
- 7) Jumlah modal dasar dapat mengalami perubahan jika diperlukan, ditetapkan dan disepakati oleh kedua belah pihak, dengan cara mengadakan perubahan akte Perusahaan.

11 2 2 94



## Pasal 5 INVESTASI

- (1) Nilai Investasi PIHAK PERTAMA yang telah tertanam pada sistem penyediaan air bersih Tukad Ayung I yang terintegrasi dengan sistem penyediaan air bersih di Wilayah Usaha sebesar Rp 15.402.453.923,- (Lima belas milyar empat ratus dua juta empat ratus lima puluh tiga ribu sembilan ratus dua puluh tiga rupiah) yang terdiri dari modal sendiri PIHAK PERTAMA sebesar Rp 6.597.000.000 (Enam milyar lima ratus sembilan puluh tujuh juta rupiah) sesuai dengan hasil audit dan penilaian kembali yang berwenang dan kesepakatan kedua belah pihak seperti telah dinyatakan pada ayat (2) dan ayat (3) pasal (4) dan pinjaman sebesar Rp 8.805.453.923 (Delapan milyar delapan ratus lima juta empat ratus lima puluh tiga ribu sembilan ratus dua puluh tiga rupiah) sepenuhnya akan menjadi aset Perusahaan, yang akan dituangkan dalam Berita Acara Pelimpahan Hak atas aset PIHAK PERTAMA kepada Perusahaan.
- (2) Setelah cicilan hutang pokok pada tahun pertama dan tahun kedua sebesar Rp 1.761.090.784,- (satu milyar tujuh ratus enam puluh satu juta sembilan puluh ribu tujuh ratus delapan puluh empat rupiah) beserta cicilan bunga tahun pertama dan tahun kedua di bayar oleh PIHAK PERTAMA, sisa hutang pokok dan bunga yang berasal dari pinjaman untuk pembangunan sistem penyediaan air bersih Tukad Ayung I dengan hutang pokok sebesar Rp 7.044.263.128,- (Tujuh milyar empat puluh empat juta tiga ratus enam puluh tiga ribu seratus tiga puluh delapan rupiah) disepakati oleh kedua belah pihak menjadi hutang Perusahaan, dimana Perusahaan bertanggung-jawab penuh untuk pembayaran kembali pinjaman pokok dan bunga pinjaman tersebut yang akan dituangkan dalam perjanjian tersendiri antara Perusahaan dengan PDAM Kabupaten Daerah Tingkat II Badung.
- (3) Untuk memenuhi kebutuhan dana dalam rangka pengembangan sistem penyediaan air bersih di Wilayah Usaha, diluar dari dana yang berasal dari PIHAK PERTAMA dan PIHAK KEDUA, maka Perusahaan akan mengusahakan pinjaman jangka panjang dari Bank dan lembaga Keuangan yang lain. Untuk itu, kedua belah pihak telah sepakat untuk menyerahkan hak pengelolaan air bersih, yang dimiliki Perusahaan kepada pemberi pinjaman sebagai jaminan atas pinjaman tersebut. Pinjaman mana akan dikaitkan dengan proyeksi keuangan Perusahaan dan Perusahaan bertanggung jawab penuh untuk pembayaran kembali pinjaman pokok dan bunga pinjaman tersebut.

Pasal 6  
HUBUNGAN SEBELUM PERSETUJUAN ATAS AKTE PENDIRIAN  
OLEH DEPARTEMEN KEHAKIMAN

- 1) Menambah ketentuan dalam Persetujuan ini, yang berlaku bagi kedua belah pihak dalam pelaksanaannya, hubungan kedua belah pihak selama periode antara hari berlaku Akte Pendirian dan persetujuannya oleh Menteri Kehakiman juga akan diatur dalam pasal-pasal Kerja Sama.
- 2) Segala sesuatu dalam Akte Pendirian mengenai Pendiri Perusahaan, Dewan Komisaris dan Direksi beserta anggota-anggotanya akan dapat diterapkan pada Badan Hukum dan orang-orang yang ditetapkan dalam Akte Pendirian, dimana ada Badan Hukum dan orang-orang yang ditetapkan ini, akan bertindak sebagai Pemilik/Pemegang Saham, Komisaris-Komisaris dan Direksi-Direksi yang secara bersama-sama sebagai Dewan Manajemen, dalam penanganan masalah perusahaan dalam pembentukan selama periode dimaksud dalam pasal ini.
- 3) Mendaftarkan Perusahaan dalam Daftar Perusahaan yang diatur oleh Departemen Perdagangan Republik Indonesia.
- 4) Menetapkan izin-izin dan persetujuan-persetujuan dan mendaftarkan perusahaan pada Kantor Pajak dan lain-lain Pejabat berwenang sebagaimana disyaratkan oleh Undang-undang dan Peraturan-Peraturan yang berlaku, ataupun yang dirasakan perlu untuk Perusahaan menyelenggarakan usahanya sesuai tujuan dan sasaran yang ditetapkan dalam Akte Pendirian dan Persetujuan ini.
- 5) Mengakibatkan Perusahaan menanda-tangani Persetujuan ini dan setuju akan mengikuti seluruh ketentuan di dalamnya dan bertanggung jawab atas hasil kerja setiap kewajiban perusahaan.

Pasal 7  
HUBUNGAN SESUDAH PERSETUJUAN AKTE PENDIRIAN  
OLEH DEPARTEMEN KEHAKIMAN

Segera setelah persetujuan atas Akte Pendirian oleh Menteri Kehakiman, Direksi Perusahaan wajib mendaftarkan Akte Pendirian yang telah disetujui (lengkap dengan persetujuannya oleh Menteri Kehakiman) pada Pengadilan Negeri menetapkan wilayah Pengadilan domisili Perusahaan, dan mengemukakan Akte Pendirian (lengkap dengan persetujuan Menteri Kehakiman dan pendaftaran di Pengadilan Negeri) dalam Berita Negara melalui Notaris Perusahaan yang ditunjuk oleh kedua belah pihak.

Pasal 8  
PENGELOLAAN DAN PENGAWASAN PERUSAHAAN

- (1) Perusahaan akan dikelola oleh Dewan Direksi secara " Ex Officio" yang terdiri dari sebanyak-banyaknya 1 (satu) orang Direktur Utama dan 4 (empat) orang Direktur. PIHAK KEDUA berhak atas jabatan Direktur Utama dan sebanyak-banyaknya 2 (dua) orang Direktur dan PIHAK PERTAMA berhak sebanyak-banyaknya atas jabatan 2 (dua) orang Direktur, yang semuanya akan disetujui oleh Rapat Umum Pemegang Saham sesuai dengan Akte Pendirian Perusahaan.
- (2) Perusahaan membentuk Dewan Komisaris yang mengawasi jalannya Perusahaan yang dilaksanakan oleh Direksi dan para anggotanya, terdiri dari sebanyak-banyaknya 1 (satu) orang Komisaris Utama dan 4 (empat) orang komisaris. PIHAK PERTAMA berhak atas jabatan Komisaris Utama dan sebanyak-banyaknya 2 (dua) orang Komisaris dan PIHAK KEDUA berhak sebanyak-banyaknya atas jabatan 2 (dua) orang Komisaris.
- (3) Untuk pelaksanaan tugas harian. Dewan Direksi dapat mengangkat seorang General Manager yang professional berdasarkan kesepakatan bersama. General Manager ini bertanggung jawab kepada Dewan Direksi.

Pasal 9  
PENEGASAN DAN JAMINAN

PIHAK PERTAMA dan PIHAK KEDUA menegaskan dan menjamin yang satu terhadap pihak lainnya sebagai berikut :

- (a) Persetujuan ini menunjukkan kewajibannya yang terikat resmi.
- (b) Tidak ada ketentuan dalam Undang-undang, Peraturan, beban Hipotek, Inden, Kontrak, Laporan Keuangan, Persetujuan atau resolusi yang mengikat, yang bertentangan dengan atau mencegah pelaksanaan, penyerahan atau penyelenggaraan syarat-syarat persetujuan ini atau dokumen/persetujuan lainnya yang disebut dalam persetujuan ini.

Pasal 10  
PENGELUARAN BIAYA SEBELUM PENDIRIAN PERUSAHAAN

- (1) Perusahaan akan menanggung semua biaya-biaya yang dikeluarkan sebelum Perusahaan berdiri, yang digunakan untuk hal-hal sebagai berikut :
  - (a) Semua pengeluaran biaya dan upah yang wajar untuk Bantuan jasa, Hukum dan Notaris di Indonesia dalam kaitannya dengan persiapan, diskusi dan penyiapan Persetujuan ini, Persetujuan lainnya yang disebut didalamnya atau berkaitan dengan Pendirian dan operasi Perusahaan dan Persetujuan manapun yang masih harus disusun oleh perusahaan dengan Pihak Ketiga, Akte

Pendirian dan Perubahan-Perubahannya, Pengajuan kepada Departemen Kehakiman untuk Persetujuan Akte Pendirian, dan untuk Dokumen-Dokumen lainnya atau tindakan lainnya yang berkaitan dengan pendirian Perusahaan ini.

- (b) Semua upah, pajak dan bea atau biaya lainnya berkaitan dengan masalah apapun ditunjuk dalam (a) pasal ini, dan
  - (c) Pengeluaran lain manapun yang ditetapkan oleh Rapat Umum Pemegang Saham untuk dianggap sebagai Pengeluaran Perusahaan.
  - (d) Semua pengeluaran pada butir (a), (b) dan (c) pada ayat ini, harus mendapat persetujuan kedua belah pihak dan ditetapkan dengan berpedoman/mengikuti peraturan Pemerintah yang berlaku.
- (2) Jika oleh karena suatu hal Perusahaan tidak jadi didirikan, masing-masing Pihak bertanggung jawab atas semua biaya dan pengeluaran yang terjadi secara proposional sesuai dengan bagian modal yang akan ditempatkan oleh masing-masing pihak.

#### Pasal 11

##### MASA KERJASAMA, LIKUIDASI DAN SERAH TERIMA

- (1) Persetujuan ini efektif pada tanggal dan hari penandatangan oleh PIHAK PERTAMA dan PIHAK KEDUA, dan akan tetap berlaku terhadap masing-masing Pihak sampai berakhirnya masa konsesi.
- (2) Persetujuan ini dapat diakhiri sewaktu-waktu sebelum tanggal pembubaran yang telah disetujui, atas persetujuan Kedua belah Pihak.
- (3) Masa konsesi terhitung sejak PIHAK PERTAMA dan PIHAK KEDUA secara bersama-sama melaksanakan pengelolaan sistem penyediaan air bersih Tukad Ayung I dan Tukad Ayung II secara bersama-sama.

#### Pasal 12

##### KEADAAN MEMAKSA (FORCE MAJEURE)

- (1) Yang dianggap sebagai keadaan memaksa (force majeure) adalah semua kejadian yang tidak dapat diperkirakan atau dapat diperkirakan tetapi diluar kemampuan masing-masing pihak, yang mempengaruhi pelaksanaan persetujuan pembentukan perusahaan patungan, yaitu :
  - a. Bencana alam, sabotase, perang, keadaan darurat, banjir, kebakaran, gerakan massa ataupun bencana lainnya yang mengakibatkan pelaksanaan persetujuan pembentukan perusahaan patungan disepakati dalam perjanjian kerjasama ini tidak dapat dilaksanakan sebagaimana mestinya.

b. Kebijakan Pemerintah yang mengakibatkan pelaksanaan persetujuan pembentukan perusahaan patungan disepakati dalam perjanjian kerjasama ini tidak dapat dilaksanakan sebagaimana mestinya.

- 2) Baik PIHAK PERTAMA maupun PIHAK KEDUA akan mengatasi keadaan memaksa sebagaimana yang dimaksud dalam ayat (1) pasal ini segera setelah keadaan memaksa itu diketahui dan memberitahukan secara tertulis kepada masing-masing pihak paling lambat 3 (tiga) hari setelah keadaan memaksa tersebut diketahui.
- 3) Pada hari diterimanya pemberitahuan tertulis tentang keadaan memaksa dari salah satu pihak kepada pihak lainnya, maka sejak itu pihak yang memberitahukan keadaan memaksa dibebaskan dari ketidakmampuannya dalam pelaksanaan kewajibannya sebagai akibat adanya keadaan memaksa, sampai keadaan memaksa tersebut dapat diatasi.

### Pasal 13 KETENTUAN UMUM

- (1) Semua pemberitahuan dan informasi yang diperlukan atau diizinkan untuk disampaikan kepada pihak manapun dalam Persetujuan ini mengikuti ketentuan Persetujuan ini, akan menggunakan Bahasa Indonesia dan tertulis diserahkan secara langsung atau melalui kurir udara yang telah dibayar terlebih dahulu (untuk tiap kasus, dengan tanda tangan penerimaan) atau dikirim dengan teleks dialamatkan sebagai berikut :

(i) Jika kepada Perusahaan, dialamatkan kepada Kantor utama pada saat itu.

(ii) Jika kepada Pemegang Saham:

PERUSAHAAN DAERAH AIR MINUM DAERAH TINGKAT II BADUNG,  
Jalan Achmad Yani No 92, Denpasar.

PT. MAHASARA BUANA  
Gedung Wisma Antara lantai 8  
Jalan Merdeka Selatan 17, Jakarta Pusat

PT. INTAN DYANDRA MULYA  
Cedung Wisma Dharmala Sakti lantai 15  
Jalan Jenderal Sudirman, Kaveling 32, Jakarta Pusat.

PT. DEWATA ARTHA KHARISMA  
Jl Petitenget, Kerobokan.  
Denpasar, Bali.

Pemberitahuan dianggap diterima pada saat diterima jika dikirim langsung, 5 (lima) hari kerja setelah tanggal kirim jika melalui kurir udara, 1 (satu) hari kerja setelah kirim teleks.

- 1) Didalam persetujuan ini, hak atau kewajiban manapun didalamnya tidak dibenarkan untuk dikuasakan atau dialihkan oleh PIHAK PERTAMA maupun PIHAK KEDUA tanpa Persetujuan tertulis pihak lainnya.
- 2) Persetujuan ini meliputi seluruh kesepakatan kedua belah pihak berkenaan dengan pokok persoalannya, dan dapat di-ubah atau dimodifikasi hanya dengan cara tertulis dan ditandatangani oleh PIHAK PERTAMA dan PIHAK KEDUA.
- 3) Kecuali jika sengaja ditentukan dalam Persetujuan ini, tidak ada dalam Persetujuan ini yang akan ditafsirkan sebagai mengangkat Pihak manapun sebagai Kuasa atau Wakil resmi pihak yang lainnya untuk tujuan apapun.  
Tidak ada pihak dalam Persetujuan ini yang memiliki hak atau wewenang untuk menganggap atau menciptakan kewajiban dalam bentuk apapun atau membuat tuntutan atau protes, dinyatakan secara langsung atau tidak langsung, atas nama Pihak lainnya.
- 5) PIHAK PERTAMA dan PIHAK KEDUA wajib memberikan penjelasan yang diperlukan oleh Lembaga atau Pejabat Pemerintah agar Perusahaan dapat berusaha secara efektif.
- 6) Meskipun telah ditentukan dalam Persetujuan ini, andaikan suatu Undang-undang atau Peraturan, Ketetapan Pemerintah, Kebijakan Pemerintah atau Permintaan Pemerintah (antara lain Ketentuan Impor atau Ekspor, Syarat-syarat Perizinan, atau permintaan dokumen tertentu untuk perusahaan atau pernyataan) secara efektif menghambat Perusahaan atau Pihak manapun untuk menerapkan Persetujuan ini atau investasi dimaksud, maka Perusahaan dan Pihak-Pihak tersebut wajib mengurangi pengaruh penghambat tersebut.
- 7) Persetujuan ini tunduk pada dan ditafsirkan serta diartikan sesuai dengan Peraturan perundang-undangan di Indonesia.
- 8) PIHAK PERTAMA dan PIHAK KEDUA sepakat bertindak lebih lanjut, menyusun dokumen yang diperlukan untuk melaksanakan ketentuan-ketentuan dalam persetujuan ini.
- 9) Jika ada ketentuan dalam persetujuan ini ataupun penerapannya oleh karena suatu hal menjadi tidak berlaku atau tidak ada kekuatan hukum, maka ketentuan lainnya dari Persetujuan ini tidak akan terpengaruh, dan tiap ketentuan yang lainnya akan tetap berlaku dan mempunyai kekuatan hukum sepenuhnya. Dalam hal ketidak berlakuan sebagian semacam itu, PIHAK PERTAMA dan PIHAK KEDUA sepakat, dengan iktidar baik, menggantikan ketentuan-ketentuan yang tidak berlaku dengan yang berlaku dan berkekuatan hukum yang ditinjau dari sudut ekonomi, tidak jauh berbeda dengan pengaruh ketentuan yang tidak berlaku tersebut.

- (10) Sepanjang tidak bertentangan dengan isi Persetujuan ini, butir-butir dalam Kesepakatan Bersama (Memorandum Of Understanding) tanggal dua puluh empat September seribu sembilan ratus sembilan puluh tetap berlaku dan dianggap sebagai bagian yang tidak terpisahkan dari Persetujuan ini. Butir-butir dalam Kesepakatan Bersama (Memorandum of Understanding) yang bertentangan dengan isi persetujuan ini dinyatakan tidak berlaku lagi.
- (11) Judul pasal-pasal Persetujuan ini dimaksudkan untuk mempermudah penunjukan belaka, dan tidak merupakan bagian dari Persetujuan ini, dan tidak akan mempengaruhi penafsirannya.
- (12) Persetujuan dibuat dalam Bahasa Indonesia, bahasa yang akan dipakai selanjutnya. Terjemahannya tidak akan mempunyai kekuatan hukum atau mempengaruhi penafsirannya.
- (13) Selama cicilan hutang pokok dan bunga dari pinjaman untuk pembangunan sistem penyediaan air bersih Tukad Ayung I dibayar oleh PIHAK PERTAMA, semua hasil dan kewajiban keuangan dari sistem penyediaan air bersih Tukad Ayung I yang sudah dioperasikan akan merupakan pendapatan dan kewajiban PIHAK PERTAMA.

#### Pasal 14 PERSELISIHAN

- (1) Apabila terjadi perselisihan antara kedua belah pihak, pada dasarnya akan diselesaikan secara musyawarah.
- (2) Apabila dengan cara musyawarah belum dapat menyelesaikan perselisihan, maka kedua belah pihak dapat mengajukan persoalan kepada suatu Arbitrasi yang mengacu pada peraturan dan tata cara Badan Arbitrasi Nasional Indonesia (BANI), terdiri dari tiga (3) anggota dimana anggota pertama ditunjuk oleh PIHAK PERTAMA, anggota kedua ditunjuk oleh PIHAK KEDUA dan seorang ketua yang merangkap anggota yang ditunjuk oleh kedua belah pihak. Keputusan Arbitrasi yang diterima oleh kedua belah pihak, bersifat pasti dan mengikat kedua belah pihak.
- (3) Apabila dengan cara musyawarah dan arbitrasi belum dapat menyelesaikan perselisihan, maka kedua belah pihak dapat mengajukan perselisihan ke Pengadilan Negeri di Denpasar.

#### Pasal 15 LAIN-LAIN

Masalah lain berkenaan dengan penerapan Persetujuan ini yang masih belum terselesaikan akan diselesaikan sebelum Persetujuan Akte Pendirian Perusahaan oleh Menteri Kehakiman, seizin kedua belah pihak dan jika terjadi setelah persetujuan Menteri Kehakiman, oleh Rapat Umum Pemegang Saham.

PIHAK PERTAMA dan PIHAK KEDUA, menanda tangani Persetujuan ini di Denpasar oleh wakil-wakil mereka yang berwenang pada tanggal tersebut diatas, dalam empat rangkap dengan satu rangkap untuk masing-masing pihak, dan masing-masing rangkap mempunyai kekuatan hukum yang sama.

PIHAK PERTAMA:

BERTINDAK UNTUK DAN ATAS NAMA  
PDAM Kabupaten Dati II Badung



Shardijatno  
Direktur

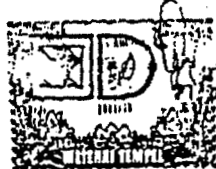
PIHAK KEDUA:

BERTINDAK UNTUK DAN ATAS NAMA  
Mahasara Buana



R.H. Sujono  
Direktur

BERTINDAK UNTUK DAN ATAS NAMA  
PT Intan Dyandra Mulya



Umar Santoso

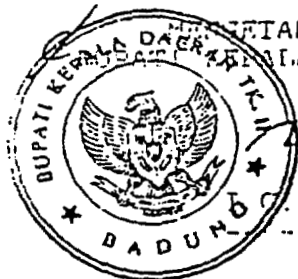
Direktur Utama

BERTINDAK UNTUK DAN ATAS NAMA  
PT Dewata Artha Kharisma



Wayan Gede Wardhana

Direktur Utama



SETIAHUI DAN MENYETUJUI  
BUPATI KEPALA DAERAH TINGKAT II BADUNG

B. ALIT PUTRA



ANNEX F

---

**DINAS KEBERSIHAN SURABAYA SERVICE CONTRACTS**

***Surat Perintah Kerja*, dated April 30, 1993 - work order for solid waste transfer services.**

## PEMERINTAH KOTAMADYA DAERAH TK.II SURABAYA

## K E P U T U S A N

KEPALA DINAS KEBERSIHAN KOTAMADYA DAERAH TK.II SURABAYA

Nomor : 658.1/ /402.5.06/1993.

T E N T A N G  
PENETAPAN PELAKSANA PEKERJAAN PENUNJUKAN

Nama Proyek : Angkutan sampah/pembersihan LPS.

Nama Pekerjaan :

Lokasi :

Anggaran : Rutin Tahun 19 93 /19 94.

Kode Pos Pasal : 2.3.5. 1065

MIMBANG : 1. Bahwa untuk pelaksanaan pekerjaan yang dibiayai dari Dana Anggaran Pendapatan dan Belanja Daerah tahun 1992/1993, perlu ditetapkan pelaksanaan pekerjaan sebagai hasil Usulan Panitia Pengadaan Pelelangan.

2. Bahwa dari calon yang diusulkan oleh Panitia, di nilai menguntungkan bagi Negara dan dapat dipertanggung jawabkan adalah Penawaran dari :

CV/PT :

Jalan :

INGAT : 1. Peraturan Kotamadya Daerah Tk. II Surabaya Nomor 3 Tahun 1992 x 3

2. Surat Keputusan Walitamadya Kepala Daerah Tk. II Surabaya No. 20 Tahun 1992 x 3 tgl. 22 Maret 1992 x 3

3. Surat Keputusan Walikotamadya Daerah Tingkat II Surabaya No. 45 Tahun tgl.

PERHATIKAN : Berita Acara Pembukaan Surat Penawaran dan Penilaian Surat Penawaran Harga, dari Panitia Pelelangan / Penunjukan Nomor : 658.1/BA/204 /402.5.06/19 93  
Tanggal : 21 April 1993.

104

M E M U T U S K A N

K E P A D A :

Pertama : Menetapkan Pelaksana Penunjukan Pekerjaan, untuk melaksanakan Pekerjaan :

1. Nama Proyek : Angkutan sampah/pembersihan LPS.  
Nama Pekerjaan : Pembersihan/angkutan sampah ke LPA dari LPS :  
L a k a s i :

2. Nama Perusahaan :  
A l a m a t :  
N P W P :  
Harga Penawaran : Rp.

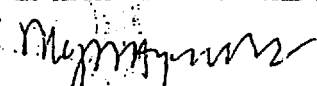
K e d u a : Biaya pelaksana tersebut diatas dibebankan pada Anggaran Rou-  
tin, APBD 1993 /19 94 Kode Pasal. 2.3.5.

K e t i g a : Ketentuan-ketentuan lain yang berhubungan dengan pelaksanaan  
pekerjaan tersebut akan diatur lebih lanjut dalam Surat Perin-  
tah Kerja ( SPK ).

Ditetapkan di : S U R A B A Y A

Pada Tanggal : 26 April 1993.

PIH. KEPALA DINAS KEBERSIHAN  
KOTAMADYA DATI II SURABAYA

  
Ir. RAYAS SATYA DEARMA

Penata Teknik TK.I  
NIP.510 040 224.

Tembusan Kepada :

Yth. 1. Sdr. Kepala Itwilkodya  
2. Sdr. Kepala Bagian Keuangan  
3. Sdr. Ka. Bagian Pembangunan  
4. Sdr. Ka. Dinas Pekerjaan Umum Daerah  
5. Sdr. Ketua Panitia Pelelangan/Penunjukan  
KOTAMADYA DATI II SURABAYA.  
6. Sdr. Direktur CV/PT.

PEMERINTAH KOTAMADYA DAERAH TK.II SURABAYA  
DINAS KEBERSIHAN

BEST AVAILABLE COPY

## SURAT PERINTAH KERJA

No. : 658.1/SPK/. 402.5.06/1993

MA PROYEK Angkutan sampah/pembersihan LPS.

MA PEKERJAAN

J K A S I

BUN ANGGARAN : 1993 / 1994.

DE POS PASAL : 2.3.5.

## KEPALA DINAS KEBERSIHAN

Selaku Penanggung Jawab Anggaran Dinas Kebersihan  
Kotamadya Daerah Tingkat II Surabaya

- dasarakan : 1. Keputusan Presiden R.I. Nomor 29 Th.1984 tentang Pelaksanaan Anggaran Pendapatan & Belanja Negara
2. Instruksi Presiden R.I. Nomor 1 Tahun 1988;
3. Keputusan Menteri Dalam Negeri No.903-1319 Tahun 1985;
4. Keputusan Menteri Dalam Negeri No.23 Tahun 1988;
5. Peraturan Daerah Kotamadya Dati II Surabaya Nomor 2 Tahun 1993 tgl. 1993 tentang Anggaran Pendapatan & Belanja Daerah Kotamadya Dati II Surabaya Tahun Anggaran 1991/1992.
6. Surat Keputusan Walikotaamadya Kepala Daerah Tk.II Surabaya No. 28 Th. 1993 tgl. 26 Maret 93 tentang Penjabaran Anggaran Pendapatan & Belanja Daerah, Tahun Anggaran 1992/1993;
7. Surat Keputusan Walikotaamadya Kepala Daerah Tk.II Surabaya No. 57 Th. 1992 tgl. 28 April 92, tentang Penetapan Penanggung Jawab Anggaran Proyek, Pemimpin Proyek, dan Bendaharawan Proyek;
8. Keputusan Walikotaamadya Kepala Daerah Tingkat II Surabaya, No. 31 Tahun 1993 tgl. 31 Juli 1993, tentang Petunjuk Pelaksanaan Anggaran Pendapatan dan Belanja Daerah, Tahun Anggaran 1992/1993.<sup>4</sup>
9. Keputusan Walikotaamadya Kepala Daerah Tingkat II Surabaya, No. Tahun 1993 tgl. 1993, tentang Pembentukan Panitia Pelelangan dari BPP untuk Proyek Daerah yang dibiayai dari APBD Kota madya Dati II Surabaya, Tahun Anggaran 1992/1993
10. Surat Keputusan Penunjukan Pelaksanaan Pekerjaan /Pengadaan Barang dan Jasa Konsultan, No.658.1/205/402.5.06/19923 tar 26 April 1993

BEST AVAILABLE COPY

# M E M E R I N T A H K A N

Kepada :  
N a m a :  
Alamat :  
Jabatan : Direktur dalam hal ini  
bertindak untuk dan atas nama Perusahaan  
tersebut diatas. Untuk melaksanakan pekerjaan  
sesuai dengan ketentuan tersebut pada  
Pasal pasal Surat Perintah Kerja ini.

## Pasal : 1

### TUGAS PEKERJAAN

PIHAK KESATU dalam kedudukan seperti tersebut diatas  
memberi tugas kepada PIHAK KEDUA, dan PIHAK KEDUA  
menerima tugas tersebut untuk melaksanakan pekerjaan  
tersebut dibawah ini :  
a. Nama Pekerjaan Pembersihan/angkutan sampah ke LPA dari LPS :  
b. Lokasi/Volume : tersebut dalam kolom dibawah ini.

NO.	LOKASI PEKERJAAN	VOLUME	KETERANGAN
1.			
2.			
3.			
4.			
5.			
Jumlah :			

## Pasal : 2

### BIAYA PELAKSANAAN PEKERJAAN

- (1) Biaya Pelaksanaan Pekerjaan tersebut dalam pasal  
1 atas, di tetapkan sebesar Ro.
- (2) Biaya pelaksanaan pekerjaan ini dibebankan pada  
APBD Tahun Angg. 19<sup>93</sup>/19<sup>94</sup> Kode Pasal 2.3.5.1065.

## Pasal : 3

### ATURAN PEMBAYARAN

- (1) Pembayaran Biaya.Pelaksanaan Pekerjaan tersebut  
dalam Pasal 2,
- (2) Pembayaran dilakukan setelah pekerjaan selesai  
diperiksa dan disetujui oleh Badan Pengawas  
Pekerjaan (BPP).

## DASAR PELAKSANAAN PEKERJAAN

Pekerjaan-pekerjaan tersebut dalam Pasal 1, harus dilaksanakan sesuai dengan :

- (1) Dokumen Penunjukan Pekerjaan, yang terdiri dari : Gambar-gambar termasuk gambar detail, Rencana Kerja dan Syarat-syarat (RKS), Berita Acara Penjelasan Pekerjaan, dan ketentuan-ketentuan lainnya yang mengikat.
- (2) Semua ketentuan-ketentuan / peraturan-peraturan administrasi dan teknik yang tercantum dalam : Algemene Voorwaarden Voor de Uitvoering bij aanne ming van Openbar Werken (AV) yang disahkan dengan Surat Keputusan Pemerintah R.I. tanggal 28 Mei 1941 dan Tambahan Lembaran Negara Nomor 14571 selama tidak bertentangan dengan syarat-syarat/ uraian Pekerjaan dan ketentuan-ketentuan dalam Surat Perintah ini.
- (3) Peraturan/Peraturan - peraturan/ketentuan yang berlaku di Indonesia untuk pelaksanaan pekerjaan yang bersangkutan.
- (4) Petunjuk-petunjuk / Peringatan-peringatan lisan maupun tertulis yang diberikan oleh Direksi sesuai dengan persyaratan dan ketentuan-ketentuan yang telah ditetapkan.

## JANGKA WAKTU PELAKSANAAN

- (1) Pelaksanaan pekerjaan tersebut dalam Pasal 1, harus sudah selesai dan diserahkan untuk selambat lambatnya pada tanggal : 30 Juni 1993.
- (2) Jangka waktu pelaksanaan pekerjaan tersebut ayat (1) Pasal ini, dapat diperpanjang bila ada terjadi kelambatan yang disebabkan oleh hal-hal atau kejadian-kejadian diluar tanggung jawab Pelaksana. Untuk perpanjangan waktu tersebut, akan dikeluarkan Surat Keputusan dari Pemimpin Proyek.

## DENDA DAN SANGSI

Dalam hal penyerahan pekerjaan untuk pertama kalinya tidak dilakukan tepat pada waktunya yang telah ditentukan dalam Pasal 5, maka Pelaksana Pekerjaan dikenakan denda kelambatan sebesar 1 per mil x biaya pelaksanaan pekerjaan, untuk setiap satu hari kelambatan, dengan jumlah denda setinggi-tingginya 5% dari seluruh Biaya Pelaksanaan Pekerjaan.

(3) Tugas Direksi/Pengawas Lapangan dan BPP adalah :

3.1. Pengawas Lapangan/Direksi :

- a. Membantu tugas-tugas pengawasan Pemimpin Proyek menyelesaikan permasalahan - permasalahan teknis yang berhubungan dengan pelaksanaan Proyek yang bersangkutan, sehingga persyaratan-persyaratan yang telah ditetapkan dapat dilaksanakan dengan sempurna.
- b. Dalam melaksanakan tugas harian tersebut diatas, melaksanakan kegiatan antara lain
  - Mengawasi pelaksanaan pekerjaan di lapangan setiap hari
  - Membuat laporan kemajuan fisik pekerjaan yang akan dijadikan dasar pemeriksaan Badan Pengawas Pekerjaan (BPP).
  - Menandatangani laporan mingguan/harian.
- c. Pengawas Lapangan ditunjuk dari unsur Dinas Kebersihan dengan proyek tersebut, yang ditetapkan dengan suatu Keputusan/-Surat Tugas.
- d. Dalam melaksanakan tugasnya bertanggung jawab secara operasional kepada Pemimpin Proyek, dan secara teknis administratif bertanggung jawab kepada Kepala Dinas Kebersihan Kotamadya Dati II Surabaya.

3.2. Tugas-tugas pokok Badan Pengawas Pekerjaan :

- a. Bertanggung jawab terhadap pengawasan mutu dan Volume (kualitas dan kuantitas) pekerjaan sesuai dengan persyaratan yang telah ditetapkan.
- b. Membuat Berita Acara Kemajuan pekerjaan terhadap bagian-bagian proyek yang telah selesai dikerjakan dan diketahui oleh Pimpinan Proyek, sebagai dasar untuk permintaan pembayaran angsuran pekerjaan.
- c. Memberikan pertimbangan dan mengusulkan kepada Pemimpin Proyek atas :
  - Pekerjaan Tambah/Kurang.
  - Perpanjangan jangka waktu pelaksanaan pekerjaan yang diajukan oleh Kontraktor pelaksana.
  - Pengenaan denda kelambatan/kelalaian.
- d. Dalam melaksanakan tugasnya, Badan Pengawas Pekerjaan bertanggung jawab kepada Kepala Dinas/Penanggung Jawab Anggaran Proyek, dan membuat laporan pertanggungjawaban melalui/kepada PJA.

Pasal : 11

P E N U T U P

- (1) Surat Perintah Kerja ini ditanda-tangani oleh Kedua Belah Pihak di Surabaya pada hari tanggal dan bulan serta tahun tersebut dibawah ini
- (2) Hal-hal belum diatur atau tidak cukup diatur dalam Surat Perintah Kerja ini, akan diatur lebih lanjut sesuai ketentuan yang berlaku.
- (3) Apabila dalam jangka waktu 7 (tujuh) hari almanak setelah dikeluarkan Surat Perintah Kerja ini, pekerjaan tidak/belum dikerjakan, maka Surat Perintah Kerja ini akan dicabut/dibatalkan.
- (4) Lampiran-lampiran Surat Perintah Kerja ini terdiri dari, Surat Keputusan Penetapan Pelaksana Penunjukan, Berita Acara Pembukaan Surat Penawaran dan Penilaian Penawaran Harga, Berita Acara Penjelasan Pekerjaan, Dokumen Pekerjaan, dan Surat Penawaran Harga berikut lampirannya, serta keterangan-keterangan lainnya yang ada kaitannya dengan pelaksanaan penunjukan Langsung Pekerjaan, merupakan bagian yang tidak dapat dipisahkan dari Surat Perintah Kerja.

Untuk keperluan administrasi, Surat Perintah Kerja ini dibuat dalam rangkap 5 ( Lima ) lembar.

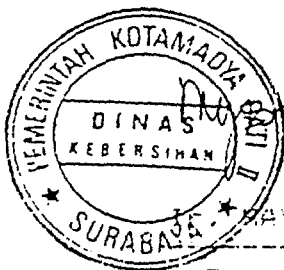
Dikeluarkan di : S U R A B A Y A

Pada Tanggal : 30 - April - 1993.

Setelah membaca dengan seksama, menyatakan menerima, Surat Perintah Kerja tersebut,

PELAKSANA PEKERJAAN  
CV./

PLH. KEPALA DINAS KEBERSIHAN  
KOTAMADYA DAERAH TINGKAT II  
S U R A B A Y A



RAYAS SATYADHARMA

Penata Teknik Tk.I  
NIP. : 510 040 224

Tembusan Kepada Yth :

- 1.Sdr. ITWILKODYA
- 2.Sdr. Kepala Bagian Pembangunan
- 3.Sdr. Kepala Bagian Keuangan
- 4.Sdr. Ketua Badan Pemeriksa Pekerjaan
- 5.Sdr. Bendaharawan Rutin Dinas Kebersihan  
KOTAMADYA DATI II SURABAYA.